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REPORT

WELLESLEY COLLEGE TRAINING CAMP

AND EXPERIMENT STATION

FOR THE

WOMAN'S LAND ARMY OF AMERICA

EDITH DIEHL
Director

SECOND EDITION
1919

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Personnel of Camp Staff

Camp Director in Chief.....*Miss Edith Diehl*

Camp Physician and Director of Sanitation and Hygiene .....*Dr. Katherine Raymond*

Camp Commissary and Household Manager....*Miss Stena Holdahl*

Camp Science and Placement....*Colonel N. H. Hall*, U. S. Marines

Camp Construction and Building Instructor....*Mr. J. B. Davison*
Rindge Training School

Camp Agricultural Director.....*Prof. J. A. Foord*
Mass. Agric. College

Camp Farm and Machinery Specialist.....*Prof. C. I. Gunness*
Mass. Agric. College

Camp Garden Specialist.....*Prof. H. F. Thomson*
Mass. Agric. College

Camp Garden Director.....*Mr. Harold D. Phelps*
Mass. Agric. College

Camp Psychological Investigator.....*Dr. Hermione Dealey*

Camp Consulting Efficiency Specialist.....*Major Frank B. Gilbreth*

Camp Drill Master.....*Sergeant Young*
Charlestown Navy Yard

Camp Motor Instructor.....*Dr. Marion Nute*

DIRECTOR'S REPORT

To the Board of Trustees of Wellesley College:

In submitting my report of the Wellesley College Training Camp and Experiment Station for the Woman's Land Army of America, I wish first to explain my delay in delivering this Report into your hands, and to express my appreciation of the consideration shown me by President Pendleton, in not urging me to greater haste in the matter. The delay was due to difficulties incident to getting my accounts settled and proper drawings and specifications made for the accompanying statistical records. These records I believe to form the most valuable part of my report, and I have strongly felt that I owed it to Wellesley College to issue them to you in the most accurate and serviceable form for possible use by the Woman's Land Army.

INCEPTION OF TRAINING CAMP

The inception of the Training Camp had its impetus last Spring in a realization that the new Woman's Land Army had a specific task to perform, and that to succeed, it must meet this definite task in a definite, business-like manner. The accepted plan of putting women on the land in groups, and operating through the so-called Unit system had not been thoroughly developed, and as these Units were put into the field during the early months of 1918, there appeared to be many points in connection with organization and administration that should be settled in a scientific manner. The pioneer Bedford Land Army Camp and several other camps in different states had solved a great many problems and had blazed the way, demonstrating both the possibility of using untrained women workers to augment the labor shortage, and the feasibility of the Unit plan of operation.

However, it became evident to several members of the Land Army Executive Committee that it was both uneconomical and inefficient to require each Unit to work out certain details for itself that could be worked out in a central experiment station, and put into available form for use throughout the country. The needless duplication of effort, and the possibility of failure in camps where limited opportunities were offered for solving various problems of housing, feeding and equipment, seemed to handicap the Land Army movement in trying to extend its usefulness in a speedy and National manner. The lack of able leaders for the camps was also evident, and it became obvious that leaders must be trained for the work and instructed in certain matters pertaining to Land Army policy, as well as in camp organization, management and discipline.

With this understanding of the need of the Land Army, I accepted the invitation of President Pendleton to act as Director of the Wellesley College Training Camp and Experiment Station, which was commissioned by the Woman's Land Army National Board to undertake a piece of scientific investigation into conditions governing camp organization and maintenance, and to train a limited number of women for Unit leadership.

PRELIMINARY ORGANIZATION

At my request, an Executive Committee was appointed in July by President Pendleton to assist me in the matters of policy and government, and an Advisory Committee was appointed to act as moral supporters of the undertaking, and to lend their aid in contributing suggestions and information needed in the organization and operation of the Training Camp.

During the month of July, the definite plans for the Camp were formed in frequent consultation with the Executive Committee. This Committee assisted me very materially in the preliminary work of the Camp organization, and it was only with this assistance that I was able to organize the Camp in so short a time. I also consulted various members of the Advisory Committee from time to time, and to President Butterfield of the Massachusetts Agricultural College, and to Miss Elizabeth Poe of the National Service School, the Camp owes much for very definite contributions.

One of the most difficult tasks in the beginning, was that of securing the personnel of the Camp Staff. Our policy was to have represented on the Staff only experts in the subjects to be considered. A list of the Staff accompanies this Report; and while each member of the Staff contributed in no small way to the success of the Camp, I feel that to Dr. Raymond and to Miss Holdahl we owe our greatest debt of gratitude.

Owing to the work to be done in establishing the possibilities and the limits of women's physical strength in farm work, I considered from the outset, that a practical medical woman should be a part of the Camp resident Staff, and we finally secured the services of Dr. Raymond, who volunteered her assistance throughout the term of the Camp, and guided me in all matters pertaining to the health of the women, and to the Camp sanitation. I shall refer later to the results accomplished under Dr. Raymond's direction.

One of the greatest contributions we hoped to make through the Camp experiment was in the matter of suitable and satisfying food for the workers. Balanced rations had been worked out for the Army, and much valuable data had been prepared by the Food Commission, but so far as we know, no balanced ration had been scientifically worked out for women farm-workers. Coincident with the question of balance in ration, was the matter of compliance with the prevailing food regulations and the matter of economy. In Miss Hohldahl, I found a trained dietitian who was a household economist and a practical food producer as well. Through her tireless study and her ready cooperation in the experiment, I am able to submit a list of Camp menus compiled with the above specified objects in view, together with various recipes necessary for producing the dishes enumerated, and a report concerning the per diem cost per person.

While securing the Camp Staff, the business of procuring candi-

dates for training, of choosing a suitable Camp site, and of purchasing Camp equipment and supplies, was proceeding.

Circulars were sent throughout the country, and the greatest effort was made to register applicants representing various degrees of training and a wide difference in ages. Our object was to provide material for experimenting in regard to the desirable qualities of leaders, to investigate the capacity of women workers on the land, and to define the physical requirements for such work. Through the entire course it will be noted that we were both experimenting and training, and in fact it may be said that the training was the secondary object of the Camp. We feel, however, that while the course in training was often sacrificed for the sake of developing some scientific results, the candidates were more than compensated by sharing in the experiments undertaken.

The Camp site had been selected by President Pendleton and myself, in consultation with Colonel Hall of the United States Marines, and commanding officer of the Charlestown Navy Yard. It was chosen with due consideration of the matter of drainage and other physical features prescribed by our Government as necessary for a healthy and convenient site. The United States Marines responded with characteristic despatch to our request for their assistance as advisors. Commandant Rush detailed Colonel Hall to us at once, and after several visits to Wellesley for the purpose of perfecting all sanitation plans, construction plans and plans for suitable equipment, Colonel Hall detailed Captain Agnus Wilson and Sergeants Young and Walker to direct and assist in the actual construction work. These three officers were in constant attendance at the Camp for the two weeks of Camp construction, and both Captain Wilson and Sergeant Young visited us frequently during the whole Camp term, advising us in various matters, and inspecting us, in accordance with strict military standards.

During the month of July, various trips were made by the Director to consult with experts in the matter of equipment. Many lists obtainable from different Land Army camps were procured, lists were made up through consultation with camping experts, our Government camp equipment lists were obtained and studied, and the splendid lists of the National Service School formed a sort of basis for the final equipment decided upon. Colonel Hall had many valuable suggestions which were incorporated into our plans, and following his suggestion, the furniture of the sleeping tents reproduced the regular army or marine camp furniture. At first thought we were inclined to make the tents more "home-like" in appearance, but were saved from this mistake by our expert adviser.

We made a very interesting experiment in the matter of beds which will be noted later in a summary regarding equipment, and owing to the prohibitive price of canvas at the time we outfitted our Camp, we chose tents made of duck instead of canvas as prescribed by our United States Army regulations. In all other respects our tents were essentially like the United States Army tent, and while we were unable to demonstrate the life of a duck tent, we successfully proved (contrary to the advice of many) that duck

tents with flys are weather-proof in New England climate at least; and it may be of interest to add, that during the month of September we suffered days of very wet weather.

OPENING OF CAMP

We opened Camp on August first with thirty-two women registered. It was determined by us at the outset that we should limit the size of the Camp, and so far as possible register candidates of divers ages and occupations, coming from various parts of the country. The enrolled candidates ranged in age from twenty-one to forty-five, and represented fourteen different states. Among our number were five married women, one Ph.D., one author of a text-book, several owners of farms, and a number of young women with no regular occupation. Eleven of the women were College graduates, and two were undergraduates.

Since a part of our course in training consisted in having the women actually construct the Camp buildings; pitch the tents, put in the water supply, and build the whole Camp, we were housed during the first two weeks in what we called barracks, awaiting the completion of this work. Norumbega Hall was assigned to us for the purpose, and although we were not able to begin cooking for ourselves until we got into our Camp quarters, the women cleaned and kept their own rooms, and attended to serving at table. We at once instituted a system of leadership among the women, and this system prevailed throughout the course and constituted a most valuable part of the training.

The first day was spent in registration and physical examinations. Three of our candidates were unable to report for the course, one was disqualified for physical unfitness, and another was dropped after the first fortnight for the same reason, making a total of twenty-seven women in Camp. Our physical examination was very complete and was carefully conducted by Dr. Raymond and her assistant. It was most important that we should know thoroughly the physical condition of each woman in order to make the comparative tests of endurance and fitness that were a part of our experiment. With this report is a sample medical examination card used in the Training Camp, which was carefully prepared by Dr. Raymond, and which we recommend for use in the Land Army. We are aware that the examination may appear too detailed at first thought, but we consider that nothing less than a thorough examination is safe before admitting girls to labor in the field, and we furthermore believe that the Land Army should insist upon such complete records, in order to protect itself from possible later complications and against charges relating to the undermined health of the workers, that could not be refuted without recourse to some such records.

DESCRIPTION OF CAMP CONSTRUCTION

Before outlining the Course, I will describe the Camp and outline the details of construction. The type of our Camp was not accidental. The usual Land Army camp was housed in an old

building, sometimes with tents as adjunct sleeping quarters. But it might be that a Unit would be needed in some district where no vacant building was available. This sort of Unit must be provided for; and since it involved all the problems of the Unit housed in buildings, with many additional problems, we purposely decided to have our Camp represent that type which could not utilize any buildings, but must be built from the ground up. Thus we set ourselves the most difficult task in Land Army camp construction and organization; and the various questions of economy, efficiency, and comfort, served to make the problem one of great interest, and offered many opportunities for original and ingenious solutions.

The construction of the Camp occupied a period of two weeks and two days. Owing to a few days of excessive heat, when it was impossible to put in full time working in the hot sun, we were two days behind schedule. Under the direction of Captain Wilson the Camp was placed in accordance with the scientific methods used by the Marines, with due consideration of the matter of prevailing winds, and with the tents lined up so that the breeze would blow through them from end to end. Two rows of tents were pitched facing each other, being of uniform distance apart and separated by a broad street running between the rows from one end to the other. At the head of this street on one side was placed the Administration Tent, with the American colors planted in front of it. On the other side, and a little beyond the Administration Tent, our Mess Hall and Kitchen were set up in a position so related to the Camp that all odors of cooking were carried away from us. At the foot of the street stood our Bath-house, and about fifty yards from the Bath-house, the Latrine was constructed. With the careful selection of the site for our Incinerator for burning all refuse, and with the designation of several "sinks" or drains, our Camp placing was complete.

Under the direction of Mr. J. B. Davison of the Rindge Training School of Mechanic Arts of Cambridge, and with the aid of two carpenters, the women constructed the four wooden buildings, several tables, and all the wooden tent floors. The Mess Hall was built after a plan adapted from a type of Mess Hall used in our Army. In order to meet the Land Army needs, we constructed it in sections, any one of which four women could handle, and made of it a sort of portable building. The Kitchen and Pantry were of similar construction, and these were attached to the Mess Hall after the plan of the National Service Camp. The Bath-house and Latrine were both constructed along lines prescribed for use by the Marines. These buildings were modified to meet the needs of the Land Army Camp, but the many points so well considered and found practical by our Government were carefully incorporated in them.

During the process of construction we found at once the value of the system of leadership that had been put into operation. The Camp members had been divided into three squads of about eight each. Over each squad was appointed a leader, and a Supervisor was apointed over the entire Camp. The Supervisor had charge

of directing all the affairs of the Camp, and on her rested the responsibility of assigning girls to their duties. Supervisors and Squad-leaders were appointed by the Director for a term of three days, and were succeeded by an entirely different group of women to perform the same duties. The object of this rotation was to test each girl's ability to lead, and to develop her powers along the line of leadership by friendly criticism and by first-hand experience. Plans for the day were made by the Director and put into the hands of the Supervisor, who in turn posted them on a Bulletin Board and translated them to her Squad-leaders. The workers learned to consider their Squad-leader authority and soon ceased to dispute or question a given order. The Squad-leaders also learned to show proper respect for the authority of their Supervisor, and appeals over the head of the Supervisor to the Director became less frequent as the work progressed, and finally ceased.

This lesson of discipline proved most needed and very valuable. The systematic division of the workers into groups headed by recognized Squad-leaders with a directing leader over all, reduced the confusion in executing the work, and made for efficiency and dispatch. A nice spirit of unquestioning and ready response was developed towards those in authority, and the Camp became a cheerful co-operative society of working women.

During the progress of Camp construction, each woman was shifted from one sort of work to another to give her an idea of the whole; and while one squad was nailing up the siding of a building or digging the ditches for the latrine, incinerator or sinks, another squad was hauling stone or receiving instruction in the handling of a plane or saw, or learning for the first time the name of a Stilson wrench and its use in pipe-laying.

Our water supply came from making connection with a College hydrant about one hundred feet away, and two squads of women cut the pipe-threads, put in the necessary unions, wiped the joints, and laid the one hundred feet of pipe in less than a day, under the direction of Mr. Davison and Sergeant Young.

In showing the women how to do this construction work, there was no intention of trying to complete even a short course in carpentry or plumbing, but the training was designed to give the women some real knowledge of the conformation of buildings and of sanitary arrangements, and to make them somewhat intelligent about buiding processes and rid them of the awe connected with a job concerning which they were ignorant. Whether the Land Army Camps are quartered in tents or in houses, or in both, the conditions of sanitation must be considered, and the problems of having to utilize the services of inexpert labor must be met. We believe that every woman who has gone through this Camp construction experience, fortified with the construction plans that accompany this Report, should be capable of ably directing the erection of a Land Army Camp, and should be fairly independent of the incapable and often unprocurable workmen.

Description of Course

The course in training might be divided into four distinct periods, each covering about a fortnight. The general aim of the course was to familiarize the women with conditions they would meet in running Units, and to train them to master the difficulties presented by these conditions.

FIRST PERIOD

Camp Construction

The first period covered the work of Camp construction which has been described above. Throughout the course lectures or "talks" were fitted into hours when it seemed advisable to change the kind of work being done, and during these first weeks the lectures were frequent. One of the underlying principles of teaching adhered to in carrying on the course, was the principle of making theory and practice go together. In so far as possible, the lectures were given in the field. If the subject were sanitation, the place was where the sanitary construction could be pointed to and observed. If the subject were motors, or first-aid, or tractors, or tool handling, the talk was given with a demonstration of motors, of bandages, or of tractors or tools; and it was given in the open, where the processes talked of had a natural and more vivid setting. A list of the lectures given during the course, together with a detailed outline of the course, will be found appended to this Report.

SECOND PERIOD

Garden Making

The second period of our training was occupied with the processes of garden making and tool handling. The course was laid out by Professor Andrew S. Thomson of Amherst, after consultation as to the objects sought and the ground to be covered. Professor Thomson detailed Mr. Harold D. Phelps of the Massachusetts Agricultural College extension service to demonstrate the work, and Mr. Phelps took the women through the various processes as outlined, giving lectures on soils and fertilizers, and on the theory of crop growing and tool handling, awakening much interest and calling forth many questions.

In demonstrating the care and the handling of tools, and the proper manner of turning over the sod and performing the other garden operations, we made the work as practical as possible. The simple demonstration of how to sharpen a hoe, and the difference between the work done with a sharp and a dull hoe, won the women to a realization of the great importance of care in little things. It was by such object-lessons as these that our course was made both practical in its immediate application, and at the same time served the purpose of reinforcing some of the general principles which we were seeking to establish.

Experiments Regarding Efficiency and Fatigue

The course was demonstrated in the College farm gardens by courtesy of Mr. Woods, Superintendent of College Grounds, and the various operations were practiced between lessons by the women under the supervision and direction of Dr. Hermione Dealey, who was there for conducting experiments to establish the following facts:

(1.) The frequency and length of rest periods necessary for women, in order to accomplish the most work with the least fatigue.

(2.) The difference in the amount of work accomplished when rest periods are taken and when they are not taken.

(3.) The difference in the amount of work accomplished after and before being instructed in the scientific way of handling a tool and of performing a given operation.

(4.) The best physical position in performing various kinds of work and the development of such a manner of working as to eliminate waste motion.

I consider Dr. Dealey's report of so much intrinsic worth that I am submitting it in its entirety, and I believe it contains much material that might be of inestimable value in establishing a code for Land Army workers. Dr. Dealey's conclusions are given in detail in her report, together with a full description of the experiment under her direction. It was due to the efforts of Mrs. Benjamin Howes of our Executive Committee that Dr. Dealey's services were procured, and I feel that the result of these experiments stands for an accomplishment of which Wellesley may justly be proud. The limited time and imperfect conditions, made it impossible to complete the work, but the investigation was in itself most important in its bearing on the subject of woman's possibilities and limits in working on the land, and it represents a scientific excursion into an entirely unexplored field, and at least constitutes a beginning in determining proper conditions and hours for women in farm work.

The experiments were performed through observing the same group of women working at the same kind of work, for the same length of time, under different working conditions. The results were compared; and briefly quoting from Dr. Dealey's report, the conclusions are as follows:

(1.) In regard to the frequency and length of rest periods, it is suggested that about ten minutes' rest every hour is a proper amount, and it was concluded that the "warming up period" may be reduced to a minimum and that good intensive relaxation during rest periods eliminates in large measure the bad effects of cumulative fatigue and keeps the worker in a more cheerful condition. Our experiment points to the conclusion that in agricultural work, the greatest efficiency and least fatigue result from frequent short rest periods, rather than fewer long ones. Though we do not feel that we have made an exhaustive investigation, our results point strongly in the direction just suggested, and we are confident in advising some definite rest periods for women in this work.

(2.) In regard to the amount of work accomplished with or without rest periods, it was found that groups of workers having a ten minutes' rest every hour, accomplished more than groups working steadily for the same length of time without rest.

(3.) The amount of work accomplished by the worker after being instructed in the scientific way of handling a tool and in the scientific method of procedure was appreciably greater in most cases than the output before learning these methods. In a few cases the output was nearly doubled.

(4.) **Physical Positions:**

(a) **In Weeding**

A squatting posture, with shifting of weight first on one foot and then on the other, proved the least tiring and the most convenient posture. A half-standing position was found to strain the back, and should be avoided. Both hands could be used in weeding advantageously without undue fatigue.

Working in pairs was found to accomplish the most work with less fatigue reaction than working singly.

(b) **In Spading**

The correct position as taught by Mr. Phelps is as follows: The right hand grasps the handle of the spade from beneath, the left foot is placed on the left side of the blade, and the left hand grasps the shank of the handlebar from beneath. As the body bends forward so as to fling a maximum pressure of weight upon the blade, the left hand slides upward towards the handle. This position was found most effective and least fatiguing, though there was a tendency to remove the left hand from the handle, putting it over the right hand in attemping to get more weight into the work.

Spading should be done along vertical lines. The dirt when thown should be, (1) turned over so that the upper soil lies underneath, and (2) at a distance from the trench line which allows one-half the dirt to slide down into the trench. This trench should be kept well defined so that the worker may continue in a straight line and not confuse earth which has been spaded with unspaded earth. Depth is acquired by inserting the entire blade into the soil. A smooth surface is gained by breaking the lumps of dirt with the side of the spade after the dirt has been thrown. The physical strength of the worker should regulate the amount of dirt lifted with the spade.

(c) **In Hoeing**

The worker stands in an almost upright position, grasps the handle of the hoe with the right (or left)

hand at the top and from above. The left (or right) hand grasps the handle from beneath at a comfortable distance below the other hand. The worker, with scarcely any bending over, progresses with the hoe ahead of her, instead of walking around in a circle with it, and works always with a sliding motion of the blade from left to right (or vice versa, if the worker is left-handed). As she progresses, the blade is practically level with the soil and is therefore in a good position to cut the weeds and loosen the dirt easily. The process of hoeing appeared to be too simple to command careful adherence to instructions, and the result was many complaints of strained backs. The desire to reach out after the next plant, instead of hoeing the plant within easy and proper range, proved also a source of fatigue.

The standard motion in hoeing was found to be neither slow nor fast, but a steady mean between the two. Failure to regulate the speed of work to the eight-hour duration of performance, caused a number of short-time workers.

One of the subjects under consideration during these experiments was in regard to the necessity of having tools of special size for women. We concluded that the ordinary sized tool was none too heavy for women to handle when they learned the professional method, and that to lighten the tool would in many cases have the effect of decreasing its efficiency; and the extra effort involved in trying to make a light tool accomplish the work of the standard tool, would in the end defeat the purpose of changing the tool's weight.

Dr. Dealey's experiments embraced also certain psychological studies which I will mention later in discussing the general experimental aspect of our undetaking. I have referred here only to that part of her wok which deals directly with the training of the woman in garden operations.

During the second part of the training there were also demonstrations in the use of tractors. Three different makes of tractor were demonstrated, and each woman in Camp served her apprenticeship in tractor driving. My opinion is that few women are physically fitted to drive tractors, thought some of our workers believed themselves quite able. The strain on the muscular system is very great in handling certain types of tractor, and the frequent and intense joltings, I believe, might be injurious to women. Moreover, though a woman may drive a tractor for a half hour without excessive fatigue, I question the possibility of many women driving tractors over our Eastern fields as a part of their regular farm work.

As Mr. Phelps had experienced several delays in conducting the home garden course, exercises VI. and VIII. had to be omitted, and we passed on to the next phase of our training without covering this part of the work.

Lectures on Efficiency

In connection with this part of the course, Dr. Gamble of Wellesley College gave the women two lectures on Practice and Fatigue. Dr. Gamble defined the processes of learning, discussed the power of association, emphasized the importance of attention and repetition, and outlined the meaning of practice, showing how it eventualy developed speed and accuracy. She also pointed out the causes of fatigue, defined the symptoms, and warned against its cumulative effects.

Dr. Gilbreth also contributed a lecture on the subject of the learning processes and fatigue causes and reactions, and interested the women to experiment independently along the line of efficiency methods in their work. During the course, as a result of this lecture, a number of women came to me with suggestions of improved methods in doing things, and the theory of eliminating waste motion was put into practice at once in our household work.

In addition to these lectures, we had the unusual opportunity of seeing the lantern slide pictures of Major Frank Gilbreth's experiments in the world of motion study, and of listening to his interpretation of these motion pictures. Major Gilbreth gave us a most interesting exhibition of faulty and perfect motions in working operations, and outlined for us some of the general principles of efficiency methods.

Object of Training in Garden Processes

Spending these two weeks in learning garden processes and tool handling, as a part of a supervisor's course may seem at first thought far-fetched and superfluous. But our object was first to give these women who were to look after the welfare of the farm workers some idea of the actual work of the worker, in order that there might be greater understanding of the physical reactions the Land Army worker would be undergoing, and that there would be a better preparation on the part of the supervisor to meet the conditions of camp life, created by the effect of the conditions attending the girl at work.

Our second object was in accord with the general purpose of the whole course. Namely, to give the supervisor some empirical knowledge of the work which forms a part of the camp organization. If the supervisor has even a slight knowledge of tools and garden processes, she will be a more intelligent supervisor in settling questions involving the camp garden operations, and in judging the capabilities of her camp garden director.

THIRD PERIOD

Observation of Farms

The third period of our course occupied two weeks in time and was divided into two parts. The first part was given over to visiting as many types of farms as could be arranged for, in order that the prospective supervisors might see in actual operation real farms;

that she might come into contact with conditions likely to surround her workers; and that she might meet the sort of farmers she would later be doing business with.

We visited eight farms in all, ranging from the smallest farm where the owner is his own hired man, to the large farm employing many hands and utilizing the most up-to-date machinery, including tractors and electric milking machines. We visited farms doing "general farming," specialty farms making a business solely of chickens or dairying, and combination farms with a specialty of chickens in connection with fruit raising or with some other enterprise. Most of these farms represented real commercial undertakings, but two of them were gentlemen's estates, run partly for pleasure and partly for profit.

It was the consensus of opinion among the women that these excursions were of great interest and value from a practical viewpoint. The farms were very carefully chosen, and were meant to exhibit the great diversity of farm enterprises and management. To the women who had little knowledge of such things, the visits were most illuminating, and the week's tripping called forth the greatest enthusiasm, and formed one of our most pleasant experiences.

This entire week of farm visiting was not all such a holiday however, as might be imagined, for there was some work connected with it, and there came into play a new sort of action. There was the business of packing luncheons, of getting the entire camp into conveyances on time for a stated hour of departure, and the experience of meeting motor road troubles.

The discipline of the previous weeks told a very gratifying tale to those of us who were watching the development of the course. The women had learned to line up in thought and body to meet promptly the calls made upon them, and their team play was in marked contrast to the indecision that frequently characterized their response to a similar demand, in the beginning of the course.

A part of the Camp equipment was a new Ford one-ton truck, bought for the purpose of teaching the women the first principles of Ford engines and how to run them. Our driving lessons had already begun, and many of the women had held the wheel for an afternoon of practice. However, a regular Camp chauffeur had been appointed, and the operation of the car on these trips was put entirely into her hands. The only "breakdown" experienced was caused by a shortage of gasoline, which was due to the carelessness of the chauffeur. This experience afforded a valuable object-lesson for the entire Camp membership.

This first half of the third period of training, having been spent in "seeing farming as it is," we planned in the second part to see farming as we are told it "ought to be." In other words, having actually visited the real farms and there observed the practice of agriculture as a commercial proposition, we next took a short course in agriculture at college.

The humor of this statement is obvious, but I do not mean to cast any reflections on the seriousness of our occupation during the week spent at Amherst at the Massachusetts Agricultural College.

Agricultural Course

During the month of July, when our entire course was being outlined and arranged for, President Butterfield of the Massachusetts Agricultural College responded very readily to an appeal for professional advice and help. While we desired to put some agricultural training into the course, we realized the ridiculous shortness of time available for this purpose, but realized also that it was not necessary to make agricultural experts of our supervisors. I visited Amherst, and consulted with Dr. Butterfield and Prof. Foord, in whose hands Dr. Butterfield put the practical work of aiding Wellesley in this undertaking.

After consultation, Prof. Foord and I decided upon the plan adopted. Namely, to devote one week to visiting selected farms for the opportunity of observing conditions in general practice, and then to visit Amherst and there get a digested account of the theory of farming. We agreed that the plan of coupling lectures and field work should be incorporated into the Amherst demonstrations, and after discussing in general the subjects to be covered, Prof. Foord was left with the task of outlining the Amherst course.

I cannot too strongly express my appreciation, and that of our whole Camp, for this contribution to our training scheme. It was intensive work and hard work, but the course was arranged with such system, the subjects covered were so interesting, and the attitude of the various professors so earnest and considerate, that the hard work was a pleasure. As one of our very most sedate women expresed it: "The week was one splendid thrill."

The experience of sitting in a lecture room listening to an exposition of the principles of apple tree pruning, or of milk producing, or of chicken raising and egg production, was a new experience to most of us. To follow each of these discussions by a trip into the apple orchard where we learned to pick apples without harming the fruit spurs that produce the next year's crop, and then into the cow-barns, where we had exhibited the various breeds of cows and had pointed out their milking characteristics, and on into the poultry yards, and around the whole Agricultural College farm in like manner, afforded a rare opportunity.

I learned afterwards that some of the professors who co-operated in carrying out the program were well put to it to prepare their subjects for presentation in such a way that the very limited time allotted for covering the work would prove worth while. They gave us one of the most extraordinary products of boiled down information, presented in popular yet technically correct language, that I have personally ever come in contact with.

I believe this course, outlined in full on a separate sheet, could well serve as a basis for various courses that might be desirable for Land Army workers. The up-to-date feature introduced by Prof. Gunness, in using movie films to make his machinery demonstrations more effective and interesting, were especially appreciated, as well as the detailed lists and carefully selected bulletins that were prepared by our professors and given to each student.

I must not fail to report that Amherst College contributed this

course free of charge to the Wellesley College Training Camp, in the interests of the Land Army movement, and that the various professors gave their services and took time out of their holiday for the purpose. Professor Foord spent much time in outlining and arranging the course, and was tireless in his efforts to insure its success.

The actual expenses of transportation to and from Wellesley and the cost of board while at Amherst were considerable. It seemed at first that we could not offer this trip as part of the course, but Amherst furnished board and lodging at a very reasonable rate, and Wellesley assumed the burden of the expense for the sake of affording this very valuable opportunity to the Camp members.

Before leaving the subject of the contribution to the course made by the Massachusetts Agricultural College, I wish to make note of the fact that Mr. Phelps' entire services were contributed by the Extension Service Department of this College in the interests of Massachusetts extension work.

FOURTH PERIOD

Farm Work

We now come to the fourth and last period of our training. At this point we put theory out of our consideration. We ceased taking notes and considered ourselves "students" no longer. The Camp was transformed into a workers' colony, and we made ready for business. The Camp chauffeur was put on regular duty, the household helpers and cooks were put on a new schedule, and the women went out to work in the field at two dollars each for an eight-hour day.

Previously, the farmers in the vicinity of Wellesley had been approached, and we had signed up with them for work. A number of the women were assigned to the Wellesley College War Farm, as Dr. Ferguson was in need of extra labor for harvesting. The women dug potatoes, harvested squashes and tomatoes and various other crops, cut corn, and filled silos. Some of the work was of the heaviest, and could not be done by the less robust members of the Camp, but there were a few of the women who proved equal to the heavy corn-cutting and the heavier squash harvesting, and one of the farmers testified that we actually saved his crops. In connection with the Wellesley War Farm work an opportunity was given for working at dehydrating and canning, and a few of the women especially valued this experience.

It may be noted that our Camp members were selected for their qualities as possible leaders and not for workers in the field. In consequence, we had a number of women who were physically sound, but who had not great muscular strength. We found that some of these women were considerably tried by the heaviest work, and we were able to make some valuable observations and deductions regarding the physical characteristics necessary for eight-hour day women farm workers.

I will not rehearse the details of these last two weeks' operations, but I want to emphasize the fact that our graduating supervisors were introduced to all the conditions usually prevailing in a regularly operating camp Unit. Time books were kept with regularity, lunches were prepared daily, Camp work was arranged and detailed in consideration of the business in hand, and the women got an inside glimpse at least of a practical working Unit, and served apprenticeship both as leader and as worker.

Additional Subjects

Through these four periods of training there was interwoven instruction in three subjects which were closely connected with camp life, and in a fourth subject of unquestionable value to any supervisor. (1) The scientific practice of cooking and household economy. (2) Knowledge of the construction, use and care of a Ford car. (3) Camp organization and the principles of business in connection with camp administration. And (4) Emergency Aid and Camp Sanitation. This last subject occupied several half days during rainy weather. Definite time was set apart for lectures and practical demonstrations in all of these subjects, and instruction and practice extended through the Camp term.

In rotation the women served their time in the kitchen and dining room. Miss Holdahl had carefully prepared menus and written recipes; and in groups of three the women were installed as Camp cooks, and actually did the cooking for the entire Camp. During their time of service in the kitchen, they were relieved of all other duties.

Instruction in driving a Ford car was a part of the training, and each woman had at least one half-day lesson in motor driving under the personal direction of Dr. Nute, a Boston physician, who is an expert mechanician, and who volunteered her services for this instruction. Dr. Nute also gave two very comprehensive lectures on the theory of a four-cylinder engine, with special reference to the Ford motor. An elaboration of the theory of a gasoline engine was later given by Professor Gunness at Amherst, and the Agricultural College machine shop afforded an interesting opportunity of seeing the different parts of a motor and of observing the make-up of each individual part. Transmissions were exhibited in action, so that the working of the gears could be seen, and the cylinders and whole shaft of the motor put in motion, with working pistons demonstrating the engine cycle. This constituted a very illuminating part of our course, and was greatly appreciated by our women.

In the matter of camp organization, there was a daily object-lesson. Our Camp was run in accordance with systematic and business principles, and these principles were explained from time to time by the Director. The importance of routine schedules was emphasized, and the theory put in practice. Record keeping and the necessity for system in ordering and in the matter of accounts were discussed, and up-to-date methods outlined.

Emergency Aid and the subject of Sanitation were covered by Dr. Raymond. Lectures were given on all the topics indicated in the outline appended, and practice work was required in bandaging, stretcher-bearing and in other methods of meeting emergencies due to physical injury or inability.

When the supervisors' course was mapped out there was a two-fold character aimed at in providing training necessary for Land Army camp leaders. In recommending a course for other training camps, I would emphasize these two points. They may be summed up as the "what" and the "how." First we sought to point out the things that are clearly connected with this supervisor's work, and then to demonstrate how to accomplish the work. It is said that leaders cannot be trained, but are born. Our opinion is that all women cannot be trained to lead, but that some leaders can be trained, if in the beginning they possess a fitness for the task; and that any woman would be a better leader if trained in the technique of her job.

Experimental Aspect of Wellesley Camp

Psychological Tests

I come now to the experimental aspect of the Wellesley Camp. I have already outlined the work of Dr. Dealey in relation to our garden operations, as this part of our experimental undertaking seemed best described in close connection with the work itself; and I will now refer briefly to the psychological tests made under her direction, and indicate the results. A full description of this work appears in Dr. Dealey's exhaustive report which we have had prepared by her, in order that an absolutely accurate statement of facts may be recorded in connection with our experiment.

This experiment was for the purpose of trying to establish a correlation between the psychological and the physical status of an individual, and her ability to perform the operations of farm labor.

I quote directly from Dr. Dealey:

"Muscular development tests were made by Dr. Raymond, using the usual methods and apparatus for such work. In addition to these tests, all members of the camp were given four of the simpler standard psychological tests, tests J and K of the Trabue language scale and an omnibus test especially constructed by Doctors Bird and Dealey to meet the needs of the camp situation. Each individual received a rank based on her score in the psychological tests and a rank based on her score in the five muscular tests. Results showed little or no correlation between achievement in psychological and in muscular tests. On the other hand, ratings received from the Trabue and omnibus tests show the value of these tests for purposes of classification on the basis of intelligence and for the selection of individuals capable of assuming responsible positions."

Buildings

One of the important experiments made at Camp was in the matter of buildings. The housing problem occupied a good deal of our attention, and the buildings which we developed are all reproduced in sketches drawn to scale and accompanied by "bills of material" and cost estimates. In making these final drawings various changes were introduced which were based on our experience of camp needs. The Bath-house illustrates a practical and cheap building suitable for a camp where running water is available. The Barrell shower affords the simplest bathing facility, and is suggested for use where running water is not to be had. The barrel may be filled by syphoning water through a hose from the ground level, and each full hogshead barrel contains a good bath for six or seven women.

The Latrine was very carefully worked out, and various changes were made before the final form was decided upon. It is reproduced together with specific directions for disinfecting, and this operation should be performed at least every other day. Where a building for this purpose already exists on a camp site, it can generally be remodeled on the principles of this latrine. A point should always

be made of having the pit about six feet deep, and slightly less in length and breadth than the base of the seat box. This seat box must also be made movable for the purpose of burning out the pit. It will be found that the mode of disinfection described will actually incinerate a large part of the waste matter, and will fumigate the building with such effect that disagreeable odors will be destroyed and flies, when present, will be suffocated and will be kept away by the fumes.

The Mess Hall and attached Kitchen and Pantry represents a form of building thoroughly practical in arrangement and well suited to its purpose. The manner of joining the Kitchen to the Mess Hall exhibits an ingenious device for excellent ventilation, and for the escape of smoke and foul odors from the Kitchen. In constructing these buildings the roof is planned to project well over the sides and ends to prevent the rain from driving in the opening around the whole building. This opening is covered with common mosquito netting for summer use, and is provided with canvas curtains inside to let down in cold weather. The Mess Hall is meant to serve as a recreation hall as well, and is therefore provided with a solid floor, and may be heated by means of oil stoves when necessity demands.

Sanitation

Some of the problems of sanitation most troublesome in a camp will be found connected with poor drainage, and the disposal of general camp refuse. Too much importance cannot be attached to the matter of carrying off water, and insuring a dry camp. Puddles of water serve as mosquito breeders, and improperly built cesspools or sinks act as a like menace. We built "sinks" at the corner of the Kitchen and Mess Hall, and along the whole side of the Bath House. They were constructed by simply digging out the ground and filling in first with large stones, and then with smaller ones, to the level of the ground. A board frame about eight inches deep lined the top of the pit, to prevent the sides from caving in. The top of this frame was even with the level of the ground, and was put in when the level of the stone was built up high enough to receive it and hold it in its proper position. Then it was filled with stone to the top.

A kitchen sink for a camp of thirty should be about five feet deep (varying with the character of the soil), by three feet square, and should have at least one side tunnel or stone avenue connected with it. These tunnels are made by digging narrow trenches running off from the sink. They are filled in at the bottom with stone, and then covered with dirt on top, so as not to disturb the appearance of the ground unnecessarily. The object of them is to increase the area of the drain without having an inconveniently large stone pit cutting up the ground surface.

In disposing of Camp refuse we experimented with a type of incinerator, but found it was not adapted to the use of such small camps. We finally improvised an incinerator, which was nothing more than a shallow basin made in the ground by digging out and filling in with stone, and then covered with an old piece of iron

grating. This grating was supported by four corner stones, which elevated it enough to insure sufficient draft to keep a fire burning. On this iron grating we piled daily all the Camp refuse collected by the "Camp Police," and the tin cans from the kitchen were first put on to the burning pile, to destroy any decomposable matter, and later thrown into a pit kept for this purpose, and eventually buried in the ground.

It must be noted that no particles of food should be thrown on this incinerator, as we found that a small camp does not collect enough inflammable waste matter to make a fire sufficiently intense to destroy food products. All food should likewise be strained out of water deposited in the sinks or open drains, as it attracts flies. We kept a strainer for this purpose, and threw the solid matter into the covered garbage can. Garbage may, of course, be buried when it cannot be utilized for feeding pigs.

In this connection I wish to state that our Camp bought a pig to serve the purposes of economy, but that we were obliged to buy food for the pig, because we did not produce enough waste food or garbage; and we believe that a camp of this kind can be run so that the waste food is reduced to a minimum, and that something is wrong when a household of thirty women can support a pig.

In regard to flies, we had much trouble in the beginning, in spite of the greatest care; but after having all food removed from the sleeping quarters (apples and other tid-bits) and kept out of the sinks and incinerator, and after successfully enforcing the rules for closed garbage cans, and against carelessness in leaving soiled strainers in the sinks, we succeeded in beating the flies to a retreat. Certain sprays recommended for use against flies served only as a deterrent, not as a preventative, and until the cause of their presence was removed we were bothered greatly by them. We cannot too strongly advise the necessity for keeping a cleaned up camp. The daily removal and disposal of all waste matter, and the careful keeping of the Camp premises, inside and outside, will insure against many bothersome and dangerous developments. We suggest keeping all baskets of apples, all fruit and other food, whether indoors or outdoors, covered with netting.

Household Appliances

In the matter of household appliances we made two interesting experiments. The first one was with cook-stoves. We bought one three-burner oil stove with ordinary wicks, and one four-burner wickless stove. We found the latter, although a larger stove, used much less kerosene (consuming about three-quarters as much as the former), and gave a quicker and stronger heat. The wickless stove is slightly more expensive than the other, but we consider it superior. It is suggested that there is difficulty in getting burners for the wickless stove, but this difficulty can be done away with by keeping an extra supply of burners on hand, as they represent a very trifling cost.

Our second household experiment was with an iceless refrigerator, and we are very pleased to pronounce it a success. It was

perfectly simple for us to procure ice at the Wellesley Camp, but there will be many Land Army camps where ice is unprocurable, and we felt this problem to be a very real one. We therefore had built two iceless refrigerators at a cost of about four dollars each. These are simply constructed and might be made for half the price by utilizing materials at hand. The principle of the iceless refrigerator is that of reducing the temperature by means of evaporation. A full explanation may be found in the Appendix, and the specifications for constructing the refrigerator are there detailed. These directions may be obtained gratis from any of our Food Commission offices. We kept all of our perishable food for a camp of over thirty people in two of these iceless refrigerators, and when the temperature was ninety-six degrees, we had butter fit for the table, and milk unspoiled.

It is important in using this system of refrigeration to keep the cooler where a free circulation of air is obtainable. We found it better for the refrigerator to stand in the sun, where it may be shaded if necessary, but where it has all sides open to the air, rather than to stand in the shade against a building or in a corner where the air is pocketed.

Beds

In connection with camp equipment, we made many minor experiments, and the results will appear in our equipment lists. The testing of the most practical beds for camp use was attended with some discomfort on the part of our campers. We put into use for comparison, fifteen regular army cots, and fifteen common iron beds with mattresses. The cots were used with double heavy blankets folded up under the sheets in place of mattresses, and were said by many to be more comfortable than the beds during the first part of the season, but as cold weather set in, we found it impossible to keep warm in these cots. Layers of building paper and newspaper were used as protection, but did not serve the purpose, and our conclusion is that, whenever obtainable, regular beds or cots should be used instead of army cots.

One of the features of the Camp equipment insisted upon as necessary by Colonel Hall, was our mosquito netting covers for the beds. These were often objected to by the women, but we believe their general use advisable in tent sleeping quarters. It would be a misfortune if cases of malaria developed in the Land Army camps or could be traced to them, as a result of carelessness in this matter.

Tents

In regard to tents, we think the ordinary ten ounce duck tent with flys perfectly practical. We caution against paraffined tents, as being unduly warm, and counsel either having tents open at both ends or with ventilators in the end peaks. The ordinary method of guying a tent to pegs we would not employ, as the pegs easily loosen, and the tent is apt to blow over in a heavy wind. So-called "strong-backs," made by erecting a two by four rail on each side of the tent about one foot from the tent side, and two feet in height, will better

serve the purpose. The fly is tied by running the rope over the rail, and the top of the tent side is tied by passing the guy rope under the rail. This will admit of guying the fly so as to leave a space of one foot between it and the tent side, where the guy ropes are attached. The bottom of the tent is fastened down by means of wooden pins.

Workers' Costume

The solving of the problem of suitable costume for the Land Army worker was attended with much discussion. We finally decided upon introducing a costume modeled along the lines of the English Land Army worker, and consisting of a pair of breeches, cotton long sleeved shirt with turnover soft collar, and a skirted coat. The material was a very heavy drab galatea cloth. Skirts were soon found impracticable, and various styles of breeches were tried and their points noted. The two most necessary points to embody in suitable breeches are length in the seat to admit of bending over freely, and freedom in the knee, so as not to constrict the leg muscles and fatigue the worker. Our breeches embodied the greatest number of good points of any breeches tried, but should be somewhat modified in shape at the knee. Our coat was used only when appearing in public, and was designed to complete the costume for the street. Our shirt was found most practical, being an ordinary small sized man's shirt of drabbish color. Such a costume as we suggest could be manufactured to sell for about six dollars, including the shirt.

As for hats, I would recommend for the field a ten cent straw hat procurable in many general country stores all over the country, and easily fashioned into a becoming and practical shape. For a "dress" hat we had a cheap cloth hat of neat appearance that cost eighty-five cents each.

In the matter of shoes, we feel some uniform specifications should be insisted upon, as in our United States Army. A three-quarter height shoe with a broad, thick sole, and one inch heel, seems best adapted to our use. If the Land Army would arrange to have made some such shoe as was made for us, modeled on the Munson Army last, and manufactured to sell at a reasonable price, the question of sore feet would be practically eliminated, and the workers' fatigue would be greatly reduced. We used the boy scout shoes rather generally, and found them inexpensive and fairly satisfactory. The use of high heeled shoes should be unnecessary to caution against, but they may be seen on some of our Land Army workers in different camps. It may be noted that canvas shoes were not found practical, as they easily wet through. It was also demonstrated that every worker needed two pairs of shoes, to ensure having a dry pair for use the day after being caught in a heavy rain.

Camp Regimen

In regard to matters pertaining to camp regimen, we developed the usual difficulties common to community life of that sort, and we put into practise various methods of meeting these difficulties. We found one of the valuable specifics for camp unrest and rebellion

against regulation was the Camp Conference. I would recommend that every camp supervisor establish in her camp this modern method of preventing discord and of promoting harmony. At these conferences the workers advance their opinions, lodge their protests, and get the supervisor's point of view. This interchange of viewpoints is most valuable and even essential for the promotion of happiness and contentment in the camp, and for the desirable development of a sympathetic understanding between supervisor and worker.

The Squad System has already been described, and was tried out as an experiment in our Camp. We found in this system the easiest and most efficient manner of directing and controlling a number of workers, and we believe thoroughly in establishing it in principle even among small groups.

Meal Service

We developed a system of serving at table which I think worthy of mention. It proved quicker than the cafeteria method and required less room. It was that of appointing a steward for each table of ten women. These stewards took the food from the pantry and placed it on the table. Then the food was passed from one to another (the meat starting from one end and the vegetables from the other), and each helped herself to the amount she desired. This method avoided waste, and hastened service. Finally the course was removed by the stewards and replaced by the next course. When drinks were served they were poured at one end of the table, and passed along. This insured hot drinks for all, with fewer steps in the service.

Discipline

The problem of discipline is one of the most insistent and yet most difficult, and I think the members of our Camp agreed that rules are necessary, and that some sort of provision for keeping the girls "up to the mark" is imperative. The *esprit de corps* of a camp is a manufactured thing. It cannot be left to chance. It will be lacking unless it is expressly cultivated, and unless some compelling force tends to awaken and to foster it.

Our women were picked women, and they felt the significance of this fact, and at the beginning of our course I put to vote the question of having some sort of military drill introduced into the program. I personally was not certain that it would be advisable or profitable, but the women voted to have it instituted, and I procured the services of Sergeant Young of the Charleston Navy Yards, for the purpose. We had drill three times a week for about five weeks. The simple foot movements were given, and the simple line formations taught and practised. In connection with the drill, Sergeant Young gave the women some exercises calculated to limber and to harden them, and we were all surprised to find every woman in the Camp shoulder bound and generally muscle bound. The drill was greatly enjoyed by the women, and they all said it sharpened and coordinated their powers of thought and action. I have not worked out the possibilities of

introducing drill into the already over-full camp life, but I think it important that some plan be devised for utilizing either this form of discipline or of providing a substitute for it.

Transportation

With the mention of one other experiment, I have enumerated the principal subjects that were investigated at our Camp. This last subject is that of transportation, and I feel that we have little to contribute to the general knowledge concerning it. In the beginning I made an extended investigation into the usual methods of transportation in our Land Army camps, and I concluded that most of the transportation difficulty was due to overloading and to inexpert driving and care of the car. I therefore advised buying a new Ford motor truck, with a liberal carrying capacity, with solid rubber rear tires, and with a low geared engine. This car provided us with a vehicle easily able to transport fifteen people without overloading, and the low geared engine was proof against speeding.

I will not discuss the details of our experience, as I think it was too limited to be of much value. The car did us good service, but was very tiring to ride in, and for a long distance would greatly add to the fatigue of an already hard day. It was impossible to make an exhaustive study of the transportation problem in addition to the many problems worked out in our Camp this summer, and I regret that I have not a more definite contribution to offer in connection with this subject.

RECOMMENDATIONS

In concluding this report, I desire to make several recommendations and to outline certain ideas formed from my experience as Director of the Camp.

Land Army Policies

First of all, I should like to suggest that in outlining courses for Land Army leaders, there should be some place provided for teaching Land Army principles and standards. I believe it should be made evident what the Land Army stands for and purposes. The general policy of internal camp government and the desirable policy in meeting the farmer and in carrying out the Land Army purpose and ideal should also be definitely stated and made clear. There should be instruction regarding the physical and social welfare of the worker, specific information regarding the proper diet of a woman farm-worker, and concerning the amount and the kinds of work she can safely undertake. Detailed directions for the proper housing should be given, and lastly, it seems to me an idea of what the farmer's relation is, and what it may be, to the community in which he lives, would be a most desirable point to have emphasized for the benefit of the camp leaders.

All of these subjects involve fundamental principles, and might fittingly be defined for the whole country by the National organization. Unless they are made clear, we fear the various sections of the country served by our Unit system will not be served in that definite manner and uniform fashion that ought to stamp such a helpful and potential movement as that of the Woman's Land Army.

Moreover, I believe, from my experience in conducting the Wellesley College Training Camp, and after close conference with the women members, that the information dealing with the larger aspect of the subject, is just as important as that dealing with the specific task of administering the business of the camp household. It is important that our leaders should know about the farmer in his farm setting, both in respect to his business of agriculture, and in respect to his community relations. Fortified with this knowledge, the leader can far better understand how to meet the farmer in a business way, and may be able to do him a greater service in helping him to a larger social outlook, and to a greater interest in his community life. I realize this is not one of the primary objects of the Land Army, but I think it offers a very possible field for extending our service.

Food

In regard to the matter of diet, I think we should prepare a Woman's Land Army hand-book, and provide in our supervisors' courses for some practical demonstrations of food preparation. The science of dietetics is invaluable in the preparation of such menus as our Land Army must provide for its workers, if we are

to be sure that our women are well nourished and fed on balanced rations that have been worked out with reference to the relative value of proteids, carbohydrates, fats and other food properties. Our rations should be defined by dietetic experts who understand the science of combining in proportion the various food values, to meet the need of farm workers, and to supply the bulk necessary for sustaining a woman laboring in the field. In addition to nourishing our workers, we should give them really satisfying food, at a minimum cost. This is certainly not a matter that can be left to a chance cook or dietitian. Our Government has spent much time on the subject for our men in the Army and the Navy, and has published definite instructions in regard to the sort of rations suitable for a soldier or a sailor. And our Woman's Land Army organization, that proposes to put three hundred thousand women in the field, surely needs to consider this important subject with the same care and thoroughness.

In the training courses it is not possible nor desirable to teach the science of dietetics, but it is possible in a very short time to teach an intelligent woman how to cook simple things, even though she has no previous knowledge of cooking. If the work is laid out with system, if all instructions and recipes are written and given to each learner with careful explanations, and if there is competent oversight of the work, those preparing supervisors can learn to produce very palatable meals, and their experience in this line should contribute much to their ability for intelligent oversight of the food question in camps.

Professional Service in Camps

I should like to say one word regarding the necessity for employing trained people for tasks in camps. I realize it is quite out of the question to organize a camp of ten, with a paid cook and a paid chauffeur; but I believe it would be profitable to organize a camp of thirty, with a paid woman in each of these positions. I contend that it is cheaper to pay a trained cook forty or fifty dollars a month and her board, than to put one or two of the camp workers in the kitchen for this work. The professional cook will accomplish as much as two or three of those untrained workers, who might be earning for the camp two dollars a day if sent into the field. The same argument holds in regard to the camp chauffeur, and I suspect that if the Woman's Land Army were to organize a motor corps, and accept only thoroughly trained women chauffeurs and mechanicians for the service, the difficulties and expense of camp transportation would be greatly reduced.

Administration of Camps

In regard to the administrative system of Land Army camps, I should recommend very definite detailing of duties for leaders and workers, and clear specification concerning them. I most heartily urge the custom of camp conferences as a feature of the Land Army policy, and I hope the National Board will recognize

the necessity and value of these conferences, and recommend them, in outlining general administrative suggestions.

In connection with camp organization, I think some sort of fire drill should be devised, and this much neglected precaution should be considered, and practice for meeting the emergency of fire should constitute a part of each camp system.

The subject of rainy-day occupations presents a field for earnest enquiry, and while I do not pretend to answer this question, I would suggest that fire drill and physical drill could both be worked into rainy days with profit.

Camp Garden

The camp garden is one camp feature that has been left more or less to chance and I should like to see a plan worked out for camp gardens suitable to every sized camp, and recommendations sent from our National Board for making the garden a part of all camp organizations. The plans that we are submitting for camp gardens were drawn with this idea in view, and we hope the lists of seeds and tools so carefully compiled by Mr. Phelps, and the quantities suggested in our outline, will constitute at least a starting point for this work.

The camp garden seems to me to offer an opportunity for meeting various internal camp problems. It provides a way for occupying the women profitably who are left at home through lack of outside demand, or through partial unfitness for heavy labor. It also establishes a means for hardening off our workers when they come to us as raw recruits, and for giving them some instruction and practice in garden operations and tool handling. It is obvious that we cannot support a garden for these purposes, unless it is planned and managed for profit. Hence I would suggest that we consider the commercial value of the garden in connection with our camps, and plan them not only as a source of vegetable supply for the camp households, but with a view to maintaining them without economic loss to the camp, for the purpose of meeting the needs above described.

The need for hardening off our workers was made evident to us this summer, and I think more care should be given to that point than is usually given in the Land Army camps which have come under my observation. The whole question of the workers' physical fitness is most important. In our Wellesley Camp we accepted several women whom we rated "C" physically, as we wished to test their endurance in this work, in order to establish a line for rejection. In every case the women were organically sound, but showed indications of being somewhat under par in health. While these women gained in weight and improved in health, owing to our care in not allowing them to overdo (a care that could not be exercised in our camps), they proved unequal to the work, and as a result, I want to recommend that a very high standard of physical fitness be insisted upon in accepting women workers. These workers whom we rated "C" would ordinarily be classed as average women in health, and it was only after careful

professional examination that any possible under-average rating would be given them.

Care of Feet and Teeth

Particular attention should be given to the condition of the women's feet and teeth. Foot trouble is a common cause of disability, and I find that trouble with teeth is more prevalent in camps than is commonly supposed. In assisting, this summer, to determine the cause of the economic losses of a certain Land Army camp, it developed that an alarmingly large loss came through the diminished earning power of the camp as a result of giving girls a day off for attention to aching teeth. The camp lost the two dollar wage of the girl in each case, and yet paid the girl her fifteen dollars for the month. The importance of the matter is recognized in our Army, and special provision is made to meet it.

Workers' Social Welfare

Concerning the workers' social welfare, there is an opportunity for much constructive thinking. It is evident to me that most of our workers do not want to be entertained, but that they want to be allowed to "entertain" themselves. What recreation should be provided in camps I am not prepared to say, but I should like to suggest that a little music be provided for cheer, and that an agricultural library be made a part of every camp, consisting of the United States bulletins, and the various State bulletins. I found a great desire among our women to know more about the business of agriculture, for the service of which they were employed; and although many of our girls will doubtless not be interested in reading agricultural bulletins, these bulletins can be procured without cost, and I think if put into the camps will be more widely read than we might suppose.

Efficiency Methods

Among the many camp matters discussed, the small problems of the household have occupied much attention, and I think the answer to most of the questions involved may be found in the modern methods of efficiency now so generally practiced. It is certain that system is imperative if work is to be accomplished in a business-like way, and that waste of thought and motion can be materially reduced through the establishment of a good system. The necessity for care in the arrangement of kitchen and other camp departments is demonstrated by our need for quick and good service; and I think an adoption of the watchword "routine" would save the camp supervisor much work and worry, and would greatly reduce her nervous fatigue.

Size of Units

Regarding the size of Units, there may well be some prescription. In my estimation, the limits of size should be deter-

mined by State or National authorities, after a careful business survey of camp economics. I believe there is a maximum size of camp that marks the limits of efficient service and the dividing line between financial profit and loss, just as there is in all business undertakings. There is, of course, also a minimum size of camp that touches the line where the existence of a camp is justified or unjustified.

Team Work

Concluding these recommendations, I want to mention the importance I would place in camp life, on the development of team play. Team work and the spirit of co-operation are so essential to the success of any undertaking involving the action of many individuals, that it has been increasingly emphasized in all our large business plants, and has been one of the keynotes of success in carrying on our great war work, both Governmental and public institutional. Methods of developing good team play and means for promoting a co-operative spirit should be definitely considered, and at once put in practice throughout our whole Land Army movement. The presence of this spirit will make a camp; the absence of it can destroy one.

Tribute to Co-operators

Finally, I wish to pay tribute to our United States Marines, through whose agency, both in Washington and locally in Boston, our Camp received such material help, and I wish to express my appreciation of the support I received from the Camp members, from my co-workers, and especially from the members of my Executive Committee.

Respectfully submitted,

EDITH DIEHL,

Director.

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OUTLINE OF COURSE FOR SUPERVISORS AT THE WELLESLEY COLLEGE TRAINING CAMP

Aug. 1-17, Camp Construction

Use of Carpenters' Tools.
Building four Camp Buildings.
Camp Placing.
Tent Pitching.
Tent Floor Making.
Drain Construction.
Incinerator Construction.
Pipe Laying.
Construction of Tables.
Construction of Tent Shelves.

Aug. 17-31, Garden Making and Instruction in use of Garden Tools and larger Tools used in Agriculture

(Outline on accompanying sheet. Tractor Demonstrations and Practice were added.)

Aug. 31-Sept. 14 Agriculture

a. **Visiting the following types of farms:**
   1. Small general farm, worked by owner.
   2. Large general farm, with up-to-date equipment, including electric milking machines, tractors, etc.
   3. Medium sized general farm.
   4. Large chicken farm.
   5. Gentleman's estate general farm.
   6. Fruit and squash farm.
   7. Commercial dairy farm (Walker-Gordon).
   8. Private dairy farm.

b. **Course at Massachusetts Agricultural College**
   (Outline on page 39.)

Sept. 14-28, Farm Work and Vegetable Canning and Drying Work done:

Digging potatoes.
Harvesting squashes.
Cutting corn.
Filling silos.
Driving team.
Harvesting various small crops.
Drying corn, spinach, beets, etc.
Making catsup.

Subjects Carried Throughout the Course:

1. Emergency Aid, Hygiene, and Camp Sanitation. (Outline on separate sheet.)
2. Ford Motor, Construction, Care and Driving. (Outlined in Report.)
3. Cooking and Household Management. (Outlined in Report.)
4. Physical Drill.
5. Organization, and Methods of Administration.

Lectures as Indicated on Page 40.

OUTLINE OF SUPERVISORS' COURSE RECOMMENDED

By the

Director of the Wellesley College Training Camp to the

WOMAN'S LAND ARMY OF AMERICA

Camp Cooking and Household Management and Economics

To consist of Lectures on the above Subjects, supplemented by Printed Outlines and Tabulations.

Camp and Farm Mechanics

Lectures and Practice Work, covering Farm and Garden tools and Motor cars.

Camp Garden

Lectures and Practice Work.

Along the general lines of the Wellesley College Training Course.

Camp Organization

Lectures, supplemented by Outlines prepared by the Land Army Administrative authorities.

To include the following subjects:

1. Discipline.
2. Squad System development.
3. System of Accounts and Records.
4. Fire Drill.
5. Method of Detailing Duties.
6. Routine Outlines.
7. Household Management.

Camp Construction

Including Latrine, Bath, Mess Hall, Kitchen, Sanitary arrangements.

Lectures, supplemented by detailed plans and specifications.

Science of Tent Camping

To include the following subjects:

1. Making of Floors.
2. Raising, guying, pegging, and care of Tents.
3. Proper furnishing of Tents.
4. Camp Arrangement and Placing.

Lecture work, and practice of Tent Raising.

Source of Authority: United States Government practice.

Emergency Aid and Personal Hygiene

Lectures and Practice.

According to the general outline of the Wellesley College Course, with fuller development of the following subjects:

1. General Health precautions (outline U. S. Marine Handbook).
2. Care of Teeth.
3. Care of Feet, and of wet shoes.
4. General Care of Body.
5. Principles of Digestion and question of Eating.
6. General Habits. (Precautions against fatigue and lowered vitality.)
7. Proper Dress.

Social Welfare and Recreation

Lectures, founded on Policies determined by the Woman's Land Army National Authorities.

Efficiency Methods

Lectures and Printed Outlines, prepared with reference to:

1. Camp Household.
2. Camp Organization.
3. Tool Handling.
4. Camp Administration.

Land Army Policies

Including the History of the Land Army organization and growth, and in addition, covering the following matters:

1. Camp Government (institution of Conferences).
2. Size of Camps.
3. Transportation.
4. Relation of Camp to Farmer.
5. Status of Worker as Employee.
6. Costume (Workers').
7. Work suitable for Women.
8. Hours of Work.
9. Wages.

Agriculture

General Outline after the Wellesley College Training Camp Course.

WELLESLEY COLLEGE TRAINING CAMP LECTURE SUBJECTS

General

Practice and Fatigue.....Dr. Eleanor Gamble
Efficiency Methods.....Dr. Hermione Dealey
First Aid, Hygiene, and Sanitation.....Dr. Katherine P. Raymond
Motor Construction, Care, and Driving.....Dr. Marion Nute
Science of Learning.....Dr. Lillian M. Gilbreth
Motion Study and Efficiency Methods....Major Frank B. Gilbreth
Garden Making and Tool Handling.....Mr. Harold D. Phelps
Land Army Origin, Organization and Development,
Mrs. Benjamin A. Howes
Dietetics.....Miss Stena M. Holdahl
Land Army Camp Organization, Business Methods, and
Administration .....The Director

Agriculture

Agriculture in Its Larger Meaning,
President Kenyon L. Butterfield
Agricultural Education and Farm Management,
Professor J. A. Foord
Agricultural Extension Work in the U. S...Professor W. D. Hurd
Fruit Growing.....Professor F. C. Sears
Market Gardening.....Professor A. L. Dacy
Field Crops.....Professor Earl Jones
Poultry Raising.....Professor J. C. Graham
Horses, Sheep, and Swine.....Professor J. C. McNutt

Dairy Cattle.....Professor B. E. Pontius
Farm Dairying.....Professor O. A. Jamison
Soils and Fertilizers.....Professor A. B. Beaumont
Farm Machinery.....Professor C. I. Gunness
Canning and Drying.....Professor W. W. Chenoweth

SUPERVISORS' GARDEN COURSE
WELLESLEY COLLEGE TRAINING CAMP

Exercise I—Plowing

A. The use of a two-horse landside plow on sod ground.
B. The use of the same plow on tilled land.
C. The use of the swivel plow.
D. The use of the hand garden plow.

Objects:—To familiarize students with types of plows and work accomplished with them.
To illustrate the first necessary tillage operation in preparing land for planting of any kind.
To demonstrate methods of plowing; as, for instance, different widths and depths of furrows, lap-furrowing and flat-furrowing.

Exercise II—Harrowing

A. Deep harrowing—The use of the disk harrow to show the best type of deep working tillage tool used after the plow, and to show the work accomplished.
B. Shallow harrowing—The use of Acme and spike-tooth and Meeker harrows; to demonstrate the types of these tools and their efficiency in fitting a seed bed.
C. The use of a brush drag, a planker, and a roller, to finish preparation tillage operations.

Exercise III—The Hand Preparation of Garden Land

A. Spading.
   1. The use of the four-tined spading fork.
   2. The six-tined manure fork.
   3. The spade.
B. Surface fitting.
   1. The use of the garden rake.

Exercise IV—Laying Out and Planting the Garden

C. The determination of the best arrangement by a study of the crops wanted, distances of planting, and arrangement for convenience of tillage and rotation.
   (Note:—To be planned for in advance, arrangements to be made from discussion of the plan in the field.)
D. Planting the garden.
   1. Planting by hand.
      a. Small seeds.
      b. Large seeds.
      c. Setting plants.
   2. Planting with the seed drill.
      a. Small seeds—As lettuce, beets, carrots, onions, etc.
      b. The larger seeds—As corn, beans, cucumbers, etc.

Exercise V—Maintenance Tillage

A. Horse-drawn tools.
   1. Weeder.
   2. Shovel, and Spike-tooth cultivator.
      (Note:—Shovel cultivator in coarser crops, such as corn, beans, potatoes, tomatoes. Spike-tooth cultivator on smaller crops, such as small corn, small beans, celery, etc.)

B. Hand cultivators.
   1. Wheel cultivators.
   2. Wheel hoes.
   3. Hand hoes.
      a. Common garden hoes.
      b. Scuffle hoes.

Exercise VI—Seeding and Transplanting

A. Seed sowing in "flats."
B. Transplanting seedlings.
C. Field setting of plants.

Exercise VII—Harvesting

Exercise VIII—Washing and Packing Vegetables for Market

Note:—This course is recommended for a Land Army Workers' Course. It was outlined by Professor H. F. Thomson of the Massachusetts Agricultural College, and was demonstrated at the Training Camp by Mr. Harold D. Phelps of Massachusetts Agricultural College Extension Service.

SHORT COURSE FOR WELLESLEY COLLEGE TRAINING CAMP, WOMAN'S LAND ARMY OF AMERICA

September 10-14, 1918

Massachusetts Agricultural College—Amherst, Mass.

Tuesday

8.00- 9.30	Lecture	Prof. J. A. Foord	Agricultural Extension in the United States and the Mass. Agricultural College. Some factors in Successful Farm Management.
9.30-10.45	Laboratory Period	Prof. J. A. Foord	Visit around Farm
11.00-11.50	Lecture	Prof. F. C. Sears	Fruit Growing
1.00- 2.50	Laboratory Period	Prof. F. C. Sears	Visiting Orchards
3.00- 4.00	Lecture	Prof. A. L. Dacy	Market Gardening
4.00- 5.30	Laboratory Period	Prof. A. L. Dacy	Demonstration in Gardens
8.00 P.M.	Lecture	President Butterfield	Agriculture

Wednesday

8.00- 9.00	Lecture	Prof. B. E. Pontius	Dairy Cattle
9.00-10.50	Laboratory Period	Prof. B. E. Pontius	Visiting Barns
11.00-11.50	Lecture	Prof. A. B. Beaumont	Soils and Fertilizers
1.00- 5.00	Laboratory Period	Prof. A. B. Beaumont	Demonstration on Farm

Thursday

8.00- 9.00	Lecture	Prof. O. A. Jamison	Farm Dairying
9.00-10.50	Laboratory Period	Prof. O. A. Jamison	Dairy Laboratory
11.00-11.50	Lecture	Prof. Earl Jones	Field Crops
1.00- 2.50	Laboratory Period	Prof. Earl Jones	Field Crops
3.00- 4.00	Lecture	Prof. C. I. Gunness	Farm Machinery
4.00- 5.30	Laboratory Period	Prof. C. I. Gunness	Rural Engineering Building
8.00 P.M.	Lecture	Prof. W. D. Hurd	Agricultural Extension in the United States

Friday

8.00- 9.00	Lecture	Prof. J. C. Graham.....	Farm Poultry
9.00-10.50	Laboratory Period..	Prof. J. C. Graham.....	Poultry Plant
11.00-11.50	Lecture	Prof. J. C. McNutt.....	Sheep and Swine
1.00- 2.50	Laboratory Period..	Prof. J. C. McNutt.....	Demonstration in Barns
3.00- 4.00	Lecture	Prof. C. I. Gunness.....	Motors and Tractors
4.00- 5.30	Laboratory Period..	Prof. C. I. Gunness.....	Rural Engineering Building

Saturday

8.30- 9.30	Lecture	Prof. W. W. Chenowith..	Canning and Drying
9.30-11.30	Laboratory Period..	Prof. W. W. Chenowith..	College Laboratory

WELLESLEY COLLEGE TRAINING CAMP COURSE IN EMERGENCY AID, HYGIENE, AND SANITATION

I. Bandaging

The several kinds.
Their uses.
Practice in applying.

II. Injuries

Skin not broken

1. Bruises—Sprains—Strains.
2. To Joints—Dislocation.
3. To Bones—Fractures.

III. Wounds

Skin pierced or broken

1. Infection—Causes and Treatment.
2. Bleeding—Various Sources and Treatment of each.

IV. Injuries due to Heat

1. Fires—Putting out.
   Rescuing persons from.
2. Burns—Kinds, and Treatment for.
3. Heat Exhaustion and Sunstroke—Treatment.
4. Electric Shock—Treatment.

V. Drowning

Rescue of Persons.
Artificial Respiration—Methods—Practice.

VI. Unconsciousness

1. Causes of
   a. Fainting.
   b. Fits.
   c. Apoplexy.
   d. Sun-stroke.
   e. Poisoning.
2. Treatment in each case as above specified.

VII. Common Emergencies

Treatment for.

VIII. Transportation of Injured or Sick

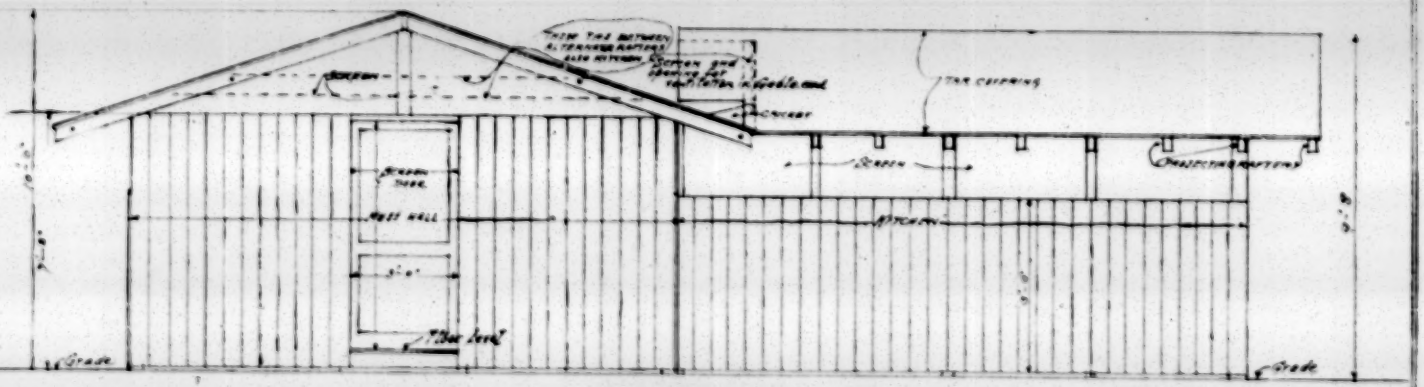
Instruction and Demonstration.

IX. Care of Feet and Person

X. Sanitation

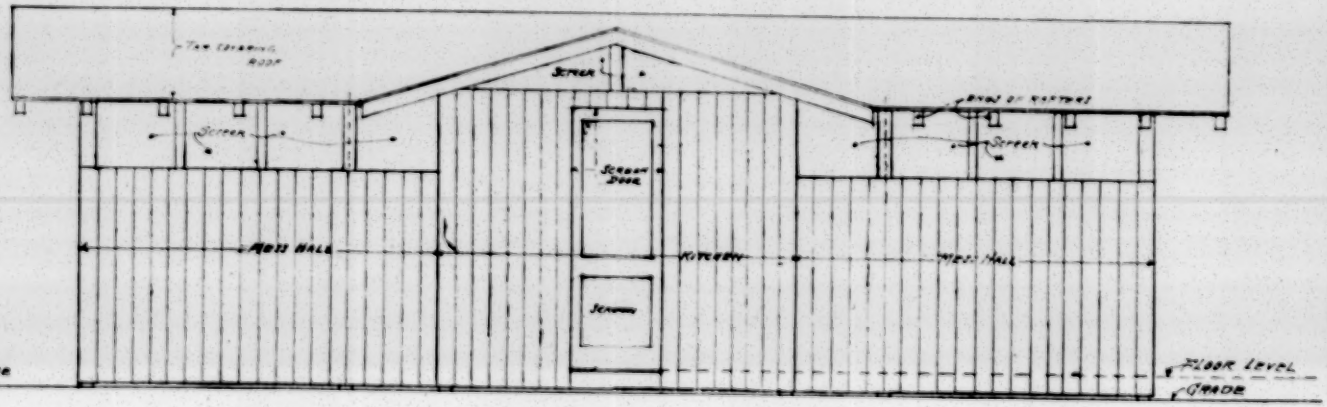
1. Latrine.
2. Drainage.
3. Cleanliness of Camp and Care of Waste Products.
4. Precautions against Flies.

WELLESLEY COLLEGE TRAINING CAMP
AND EXPERIMENT STATION



SIDE ELEVATION
MESS HALL AND KITCHEN FOR
UNIT OF THIRTY PERSONS

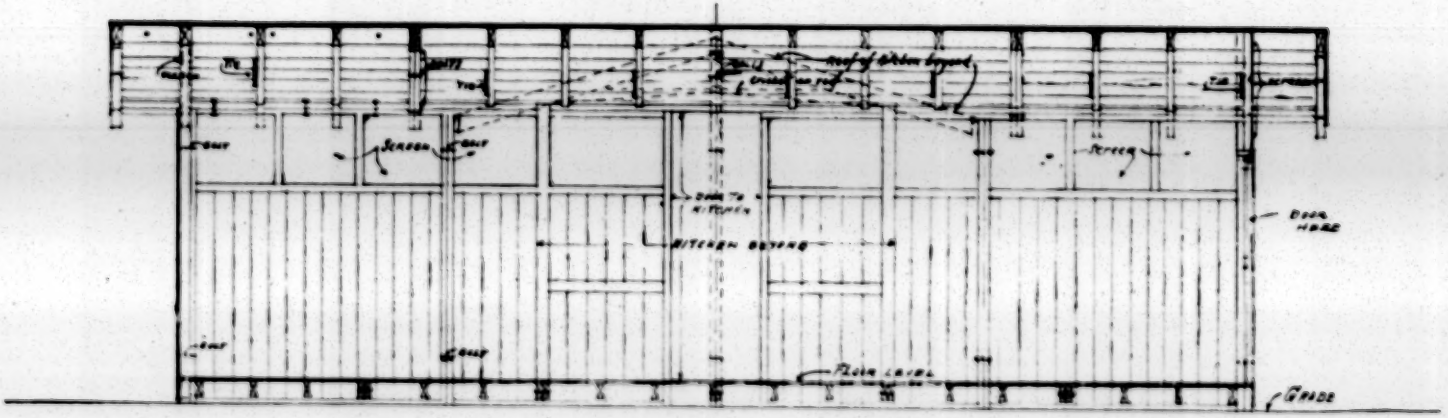
WELLESLEY COLLEGE TRAINING CAMP
AND EXPERIMENT STATION



REAR ELEVATION

MESS HALL AND KITCHEN FOR UNIT OF THIRTY PERSONS

WELLESLEY COLLEGE TRAINING CAMP
AND EXPERIMENT STATION

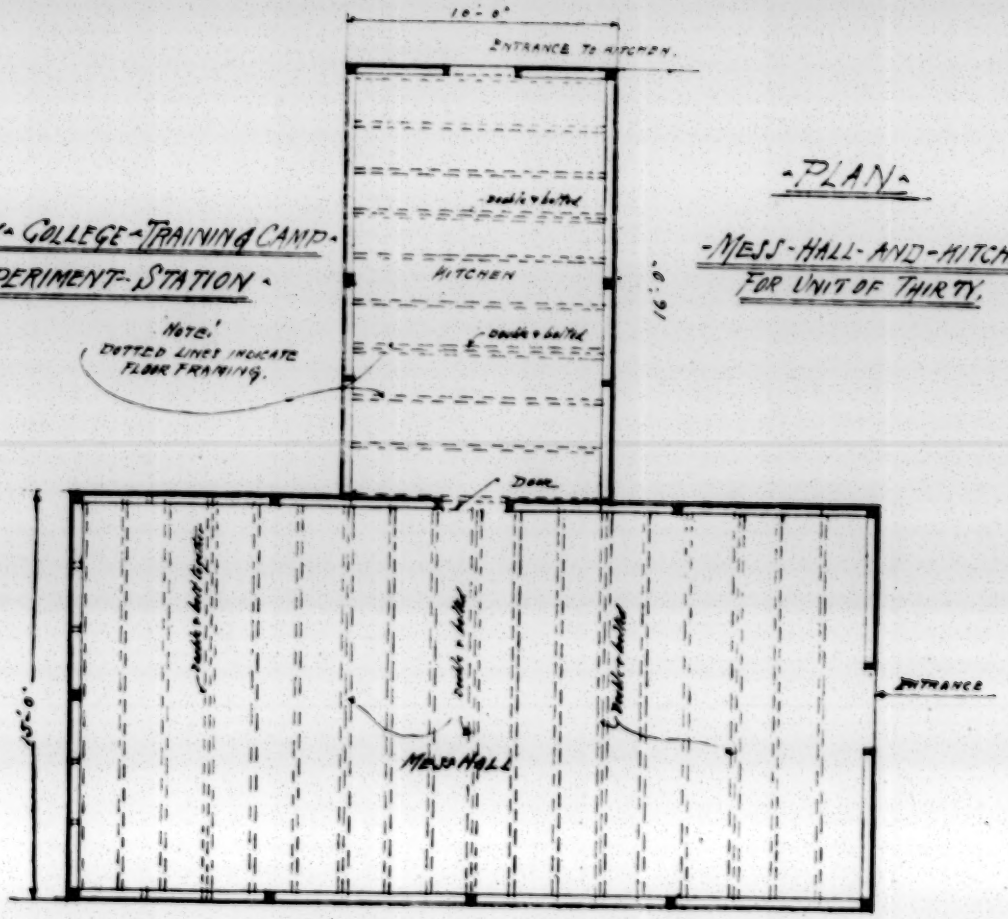


LONGITUDINAL SECTION MESS HALL
UNIT OF THIRTY PERSONS.

"WELLESLEY" COLLEGE "TRAINING" CAMP
"AND EXPERIMENT" STATION

"PLAN"

"MESS" HALL "AND" KITCHEN
FOR UNIT OF THIRTY.



WELLESLEY COLLEGE TRAINING CAMP
SPECIFICATIONS FOR MESS HALL, ESTIMATE OF MATERIAL AND COST

(For a Camp of from 30 to 40 Women)

Dimensions

30 ft. long by 15 ft. wide.
Height of boarding from floor on sides, 5 ft.
Depth of screening on sides, 1 ft. 6 in.
Total height of sides from floor, 6 ft. 6 in.
Height of end boarding from floor, 7 ft. 2 in.
Total height from floor to roof peak, 10 ft.

Material

Siding and flooring to be made of hard pine roofers or assorted spruce planed on one side, or any other ⅞-inch or 1-inch lumber obtainable. Boards may be straight-edged.

Framework and floor timbers of two-by-fours.

Roof covered with cheap tar paper.

Screening of fly-netting.

Description

The building may be made portable by building each side in four complete parts, and the roof, likewise in eight parts (four on each side). This construction necessitates finishing each section with a 2 x 4, and these end two-by-fours of the various sections are bolted together.

The floor timbers should be placed not more than eighteen inches apart in order to make the floor safe for this size building.

The sides are boarded up only 5 ft. in height, and a distance of 2 ft. 6 in. is left open between the top of siding and the roof plates. This opening is screened with fly-netting.

The entrance door is made 3 ft. wide, and the height of the end siding. Door into pantry is 2 ft. 6 in. wide and height of siding. The doors are framed up in the simplest fashion with cross-piece in the middle, and braces running diagonally across the frame. Mosquito-netting is used for screening.

The inside walls may be lined with colored building paper. This covers all cracks and makes the building fly-proof.

Estimate of Material and Cost

900 ft. 2 x 4	$ .05 4/5		$50.20
2000 ft. hard pine roofers	.05½		110.00
75 lbs. 8-penny nails	.07		5.25
20 lbs. 20-penny spikes	.07		1.40
10 lbs. roof paper nails	.07		.70
700 sq. ft. roof paper			9.00
1 doz. 2½" x 2½" machine bolts, roof	.04		.48
6 doz. 5" x ½" bolts for side	.06		4.32
60 yds. netting	.22		7.20
		$183.55	
Labor, about 88 hours ..... per hour	.70		61.60
Total			$250.15

NOTE 1. This building may be considerably cheapened by not making it portable. Saving of labor and material will be about 25%.

2. This estimate is based on New York prices. Estimate of cost prior to war would be about 60% of above.

3. See Building Plans.

WELLESLEY COLLEGE TRAINING CAMP SPECIFICATIONS FOR KITCHEN AND PANTRY, ESTIMATE FOR MATERIAL AND COST

(For a Camp of from 30 to 40 Women)

Dimensions

16 ft. long by 10 ft. wide.
Height of boarding from floor on sides, 5 ft.
Depth of screening on sides, 1 ft. 6 in.
Total height of sides from floor, 6 ft. 6 in.
Height of end boarding from floor, 7 ft. 2 in.
Total height from floor to peak of roof, 9 ft. 8 in.

Material

Same as for Mess Hall.

Description

Same as for Mess Hall.

Estimate of Material and Cost

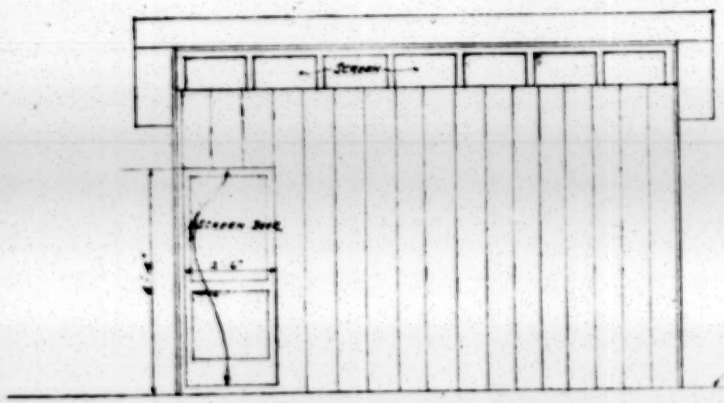
350 ft. 2 x 4		$ .05 4/5	$20.30
1000 ft. hard pine roofers		.05½	55.00
25 lbs. 8-penny nails		.07	1.75
5 lbs. 20-penny nails		.07	.35
5 lbs. paper nails		.07	.35
400 sq. ft. roof paper			5.00
44 5″ x ½″ bolts for sides		.06	2.64
6 2½″ x 2½″ bolts for roof		.04	.24
26 yds. netting		.22	5.72
			$91.35
Labor, about 40 hours	per hour	.70	28.00
Total			$119.35

NOTE 1. This building can be considerably cheapened by not making it portable. Saving of labor and material will be about 25%.

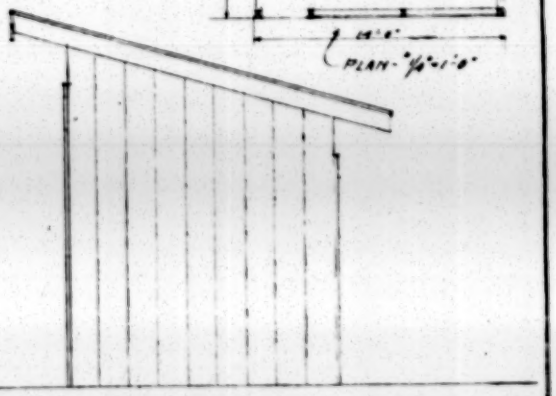
2. This estimate is based on New York prices. Estimate of cost prior to war would be about 60% of above figures.

3. See Building Plans.

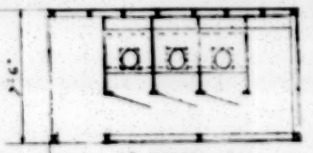
WELLESLEY COLLEGE TRAINING CAMP AND EXPERIMENT STATION



FRONT ELEVATION

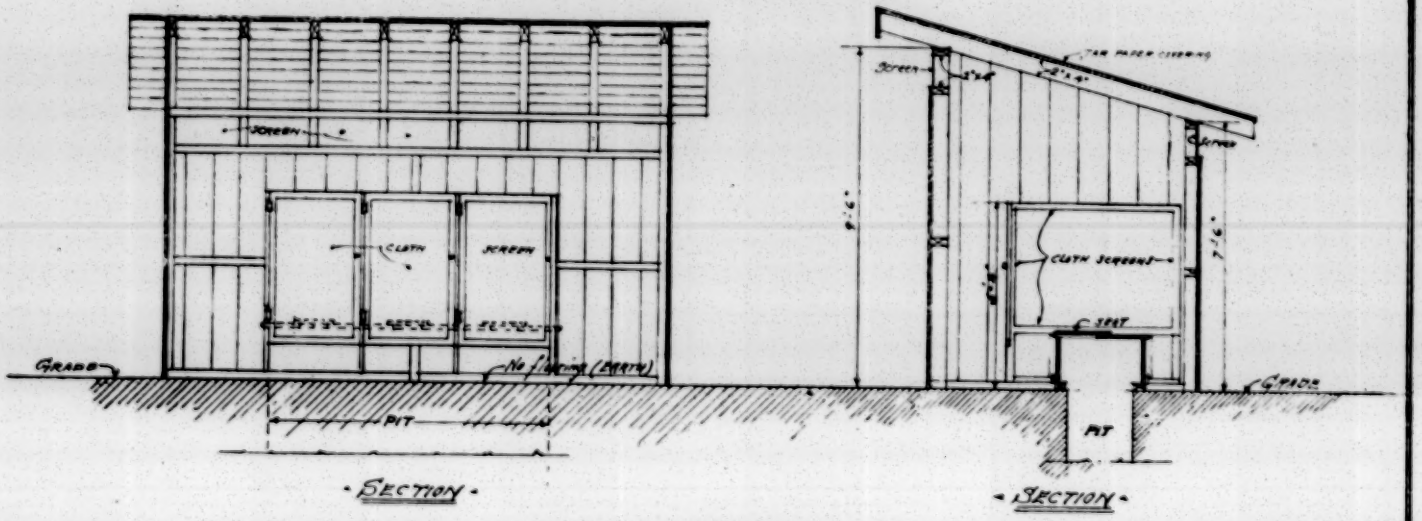


SIDE ELEVATION



LATRINES

WELLESLEY COLLEGE TRAINING CAMP AND EXPERIMENT STATION



LATRINES

WELLESLEY COLLEGE TRAINING CAMP
SPECIFICATIONS FOR LATRINE, ESTIMATE OF MATERIAL AND COST
(For a Camp of from 30 to 40 Women)

Dimensions

1. **Of Building**
   14 ft. long by 7 ft. 6 in. wide, by 9 ft. 6 in. high in front, sloping to 7 ft. 6 in. in rear.
2. **Of Pit**
   8 ft. long by 2 ft. wide by 6 ft. deep.

Material

Siding to be made of hard pine roofers or of assorted spruce planed on one side, or of any other ⅞-inch or 1-inch lumber procurable. Boards may be straight-edged and need not be tongue-and-grooved.

Framework made of two-by-four.

Roof covered with cheap tar paper.

Seat-box made of any procurable lumber.

Screening of mosquito-netting; wire not necessary.

Description

An air space ¾ ft. in width is left between the siding and the roof plate. This space is screened.

A box about 18 inches high is placed over the pit and has cut in it 3 seats, with hinged covers placed over each seat. This box sets on 2 x 4 timbers, made into a frame to receive the box. (See plans.)

Partitions separate the sections, and are made of a light framework covered with heavy paper. A swinging door is framed for the front of each section and is covered with the heavy paper also. Tar paper nails are used to fasten the paper.

The building has no floor, but there is a wooden platform in front of the seats.

The partitions are portable and must be removed when the latrine is disinfected. The frames are fastened to the back of the building by means of hooks.

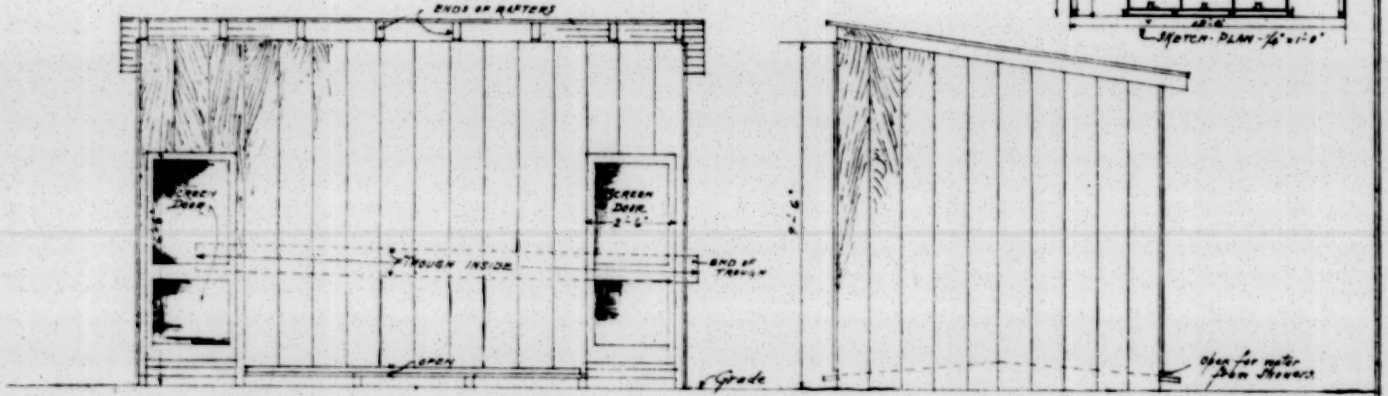
Estimate of Material and Cost

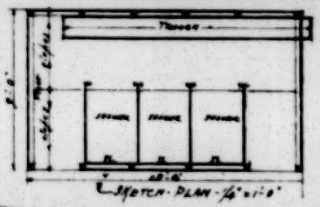
250 ft. 2 x 4		$ .05 4/5	$14.50
900 ft. hard pine roofers		.05½	49.50
20 lbs. 8-penny nails		.07	1.40
5 lbs. 20-penny spikes		.07	.35
5 lbs. roof paper nails		.07	.35
350 sq. ft. roof paper			4.75
12 yds. netting		.22	2.64
			$73.49
Labor about 40 hours	per hour	.70	28.00
Total			$101.49

NOTE 1. This estimate is based on New York prices. Estimate of cost prior to war would be about 60% of above figures.

2. See Building Plans.

WELLESLEY COLLEGE TRAINING CAMP
AND EXPERIMENT STATION



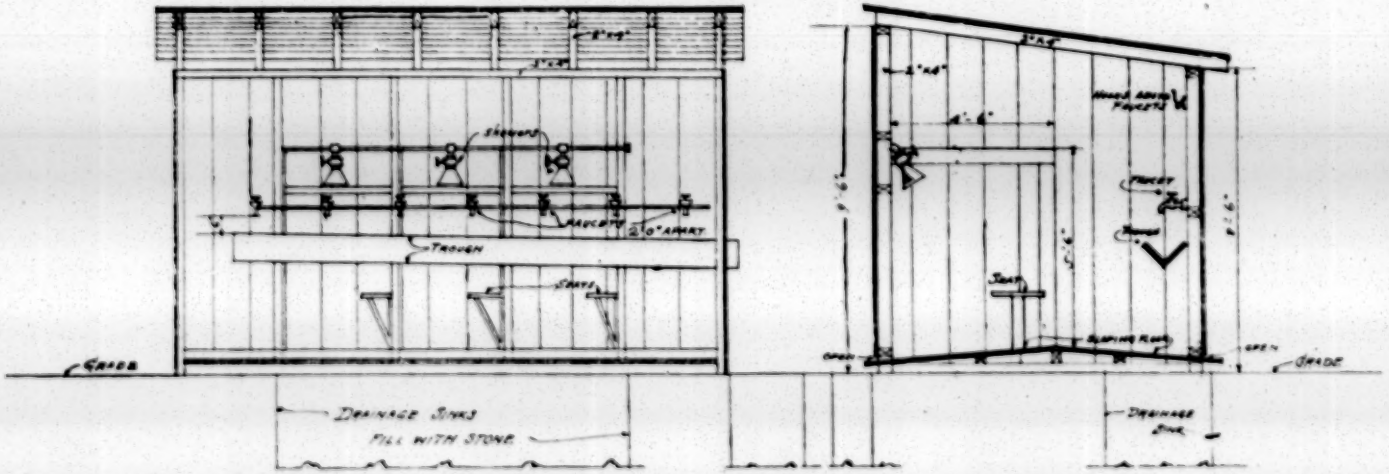


FRONT ELEVATION

SIDE ELEVATION

BATH HOUSE FOR UNIT OF THIRTY

WELLESLEY COLLEGE TRAINING CAMP AND EXPERIMENT STATION



SECTION

SECTION

BATH HOUSE FOR UNIT OF THIRTY

WELLESLEY COLLEGE TRAINING CAMP
SPECIFICATIONS FOR BATH-HOUSE, ESTIMATE OF MATERIAL AND COST
(For a Camp of from 30 to 40 Women)

Dimensions

15 ft. 4 in. long, by 9 ft. wide, by 9 ft. 6 in. high in front, sloping to 8 ft. 6 in. in rear.

Material

Siding and flooring to be made of hard pine roofers or assorted spruce planed on one side, or any other ⅞-inch or 1-inch lumber that can be bought cheaply. Boards may be straight-edged, and need not be tongue-and-grooved.

Framework and floor timbers of two-by-fours.

Roof covered with cheap tar paper.

Wash trough made of 1 x 12-inch boards.

Shower heads—tin.

Valves and faucets—any cheap kind.

Pipe—¾-inch lead, or any other convenient.

Description

The floor slopes from center of building to edge of sides and extends 2 inches beyond sides, to allow water to run off into a drain which is dug along each side of the bath-house. This drain is filled with rocks to the level of the ground.

The siding does not come to the floor, but is cut off, leaving an opening at bottom for water to run through. This obviates the necessity of traps and expensive inside drain arrangements.

The wash-trough extends along one side of the bath-house and there are seven water faucets over this trough, which serves as a general wash-basin. The trough extends through the end of the building and drains into a stone filled drain.

On the side of the bath-house opposite the trough, are three shower bath sections, each equipped with a shower head, and separated from each other by board partitions. A seat is built in each section, and a hook for clothing is placed on the outside of entrance. The entrance is covered by means of a heavy muslin curtain arranged to hook securely in place.

There are "cubby holes" built along the sides of the bath-house for toilet articles—as many in number as there are campers.

Each bath section is 3 ft. wide by 4 ft. 6 in. deep, and shower head is placed at a convenient height.

Estimate of Material and Cost

375 ft. 2 x 4		$ .05 4/5	$21.75
1200 ft. hard pine roofers		.05½	66.00
30 lbs 8-penny nails		.07	2.10
5 lbs. 20-penny spikes		.07	.35
5 lbs. roof paper nails		.07	.35
400 sq. ft. roof paper			5.00
3 shower heads and valves	each	2.75	8.25
7 faucets	each	1.50	10.50
30 ft. ¾" lead pipe	ft.	.25	7.50
			$121.80

Labor about 56 hours.....	per hour	.70	39.20
Total			$161.00

NOTE 1: This estimate is based on New York prices. Estimate of cost prior to war would be about 60% of above figures.

2: See Building Plans.

WELLESLEY COLLEGE TRAINING CAMP SPECIFICATIONS FOR TENT FLOORS, ESTIMATE OF MATERIALS AND COST

Tent floors for 9½ x 9½ tent may be made as follows: Cut five pieces of 2 x 4 lumber 9½ ft. long each. Nail one end of a 9½ ft. piece of flooring on one 2 x 4, at right angles to the end of it, and projecting over the side of the 2 x 4 about 2 inches. Nail the opposite end of the flooring piece on another 2 x 4 length, also at right angles, and likewise projecting 2 inches beyond the 2 x 4 over its side. This will form three sides of the square for the flooring, and after these three sides are squared up, the three extra 2 x 4 lengths should be run parallel to the end 2 x 4s, and at approximately equal distances apart. This gives five parallel 2 x 4s on a line at the ends.

Then nail the strip of flooring already connecting the end 2 x 4s to these cross-pieces, and proceed to nail on the rest of the flooring until the 9½ ft. width is covered, and the square floor is complete.

In placing the floor in the tent, the 2 x 4s should run from side to side of the tent; or in other words, the end of the 2 x 4s will come along the sides of the tent. Then cut a semi-circular hole into the 2-inch projection of the flooring, at a point exactly one-half the width of the floor, at both front and back of tent floor. This hole is to receive the tent end poles, in order to keep them more rigid, and to prevent their leaning to one side.

Estimate of Material and Cost

35 sq. ft. 2 x 4 (or 5-10 ft. lengths)....	$ .05 4/5	$2.03
100 sq. ft. 1 in. stock (st. edged).....	.05½	5.50
2 lbs. 10-penny nails	.07	.14
Total cost of material per floor....		$7.67

WELLESLEY COLLEGE TRAINING CAMP SPECIFICATIONS FOR MESS TABLES, ESTIMATE OF MATERIALS AND COST

Tables, 3 ft. by 10 ft.
Horses (3), 28 inches high, made of 2 x 4s.
Table, constructed with three cleets on under side.

Estimate of Material and Cost

30 sq. ft. 1 x 10 tongue-and-grooved spruce..	$ .08	$2.40
8 lin. ft. 1 x 6 roofers for cleets.....	.05½	.44
25 sq. ft. 2 x 4s for horses.....	.05 4/5	1.45
1½ doz. 1½-inch screws.....		.30
1 lb. 8-penny nails		.07
2 lbs. 20-penny spikes.....	.07	.14
Total cost of material per table.....		$4.80

EQUIPMENT LIST FOR MESS HALL

4 tables, 3 ft. wide by 10 ft. long, by 28 in. high ..... } 12 horses (3 for each table)..... }	@ $4.80	$19.20
3 doz. straight chairs.....	@ 1.25	45.00
1 center lamp	@ 4.50	4.50
1 side reflector lantern	@ 3.75	3.75
Shelves for books.		
Copies of Agricultural Bulletins.		
Total		$72.45

NOTE:—If Mess Hall is to be used as Recreation Hall, as well, tables may be moved back toward sides of building.

Such other equipment for the comfort and pleasure of the workers may be provided according to individual need of Camp.

EQUIPMENT LIST FOR KITCHEN AND PANTRY

For a Camp of 30 People

3	kitchen spoons (cooking)	$ .30
1	carving knife	.54
1	Dover egg beater 13".	.35
1	wire egg beater.....	.25
1	corkscrew	.15
1	can opener	.25
1	grater	.25
1	rolling pin	.45
2	strainers— one 8½ in. 40c one small, 15c.....	.55
1	potato ricer	.65
1	measuring cup (tin) ..	.10
1	apple corer	.19
3	small vegetable knives @ 20c.....	.60
2	frying pans, No. 4 steel	.50
6	sauce pans (cooking).	3.50
2	dishpans, 21 qt.....	2.50
6	tin pans	.90
1	coffee boiler, 10 qt....	2.00
6	bowls (small)	2.50
1	large mixing bowl, 8 qt.	1.25
1	butter jar, 4 gal.....	1.25
1	broom	1.00
1	dustpan	.50
1	tea kettle, No. 8.....	1.75
6	pie tins, No. 10 @ $1.25 doz.	.63
2	flat irons, 7-lb., @ 56c each	1.12
1	soup ladle, No. 11 tin..	.21
2	stoves— one 3 burner, oven and back	26.50
	one 4 burner, oven and back	30.75
1	pepper shaker, glass..	.10
1	salt shaker, glass.....	.10
1	box for knives, forks and spoons	.75
1	clothes line, 25 yds....	.75
1	garbage can, No. 10..	3.00
1	doz. dish towels.....	3.50
½	doz. dish cloths.....	1.50
	clothes pins	.30

1	scrub pail, 12 qt.....	.52
1	scrub brush	.20
3	floor cloths	.50
2	dust cloths	.32
	cleaning cloths	.35
1	vegetable brush	.08
4	(1 doz.) muffin tins, @ 30c each	1.20
1	qt. measure	.35
1	3 qt. double boiler....	1.50
2	asbestos mats	.20
6	hand towels	2.00
1	hand basin	.63
2	qt. jars (storing).....	.40
1	soup kettle	2.75
1	food chopper (Universal)	1.50
2	lanterns, $1.00 each....	2.00
2	large tin boxes (bread and cake)	2.00
2	small tin boxes (dry staples) Grocer.	
2	yds. white cheese cloth (for drying foods and covering)	.24
3½	doz. large plates, @ $1.00 doz.	3.50
3½	doz. small plates, @ 90c doz.	2.25
3½	doz. butter plates (small), 60c doz....	1.50
3½	doz. glasses	3.15
3½	doz. cups and saucers, @ $2.50 doz.....	6.25
4	large platters, @ 45c each	1.80
4	sugar bowls, @ 40c ea.	1.60
4	milk pitchers, @ 40c ea.	1.60
4	water pitchers, @ 40c. each	1.60
6	cake plates, @ 15c ea.	.90
6	bread plates, @ 15c ea.	.90
8	vegetable dishes, @ 35c each	2.80
12	odd plates for jam, etc., @ 10c.....	1.20
3½	doz. forks, @ 50c doz..	1.75
3½	doz. knives, @ $1.75 doz.	6.13
3½	doz. spoons (tea), @ 25c doz.....	.88
3½	doz. spoons (soup), @ 50c doz.	1.75
16	extra large serving spoons	1.00
1000	paper napkins	1.25
1	bread knife	.35
20	pkgs waxed paper.....	1.00
1	wall soap dish	.35
1	hook for hand towels.	.00
½	doz. hooks for utensils	.36
2	chairs	2.50
2	tables	6.00
1	mop	.65
1	steamer for puddings..	1.25
8	peppers, @ $2.00 doz..	1.34
8	salts, @ $2.00 doz....	1.34
4	vinegar bottles, @ 25c.	1.00
30	cereal dishes, @ 80c doz.	2.00
3	coffee pots (3 qts.), $10.50 doz.	2.63
4	pitchers for kitchen, @ 30c each	1.20
1	teapot	.70
4	coffee rests	.40
1	doz. glass jars for lunch baskets	2.25
	Total	$173.31

EQUIPMENT LIST FOR SLEEPING QUARTERS

30 Army cots @ $3.50 each.....	$105.00
30 Java Kapak pillows @ $1.50 each.....	45.00
30 cotton pads or comforters @ $1.50 each.....	45.00
15 mirrors @ 85c. each.....	11.05
15 wash basins @ $3.60 doz.....	4.50
30 tooth mugs or glasses @ $1.80 doz.....	4.50
15 tables @ $1.00 each.....	15.00
30 folding camp chairs @ $1.25 each.....	37.50
30 iron pails (15 waste, 15 water) @ 55c each..	16.50
15 lanterns @ $1.25 each.....	18.75
30 soap dishes @ 10c. each.....	3.00
8 brooms @ $1.00 each.....	8.00
30 nettings and fixtures for beds @ $1.85 each...	55.50
8 mops @ 67c. each.....	5.36
1 rubbish can	3.50
Total	$378.16

NOTE:—Army cots are not recommended for autumn use out of doors.

Estimate of Material and Cost

30 sq. ft. 1 x 10 tongue-and-grooved spruce..	$ .08	$2.40
8 lin. ft. 1 x 6 roofers for cleets.....	.05½	.44
25 sq. ft. 2 x 4s for horses.....	.05 4/5	1.45
1½ doz. 1½-inch screws.....		.30
1 lb. 8-penny nails		.07
2 lbs. 20-penny spikes.....	.07	.14
Total cost of material per table.....		$4.80

EQUIPMENT LIST FOR MESS HALL

4 tables, 3 ft. wide by 10 ft. long, by 28 in. high ..... 12 horses (3 for each table).....	@ $4.80	$19.20
3 doz. straight chairs.....	@ 1.25	45.00
1 center lamp	@ 4.50	4.50
1 side reflector lantern	@ 3.75	3.75
Shelves for books.		
Copies of Agricultural Bulletins.		
Total		$72.45

NOTE:—If Mess Hall is to be used as Recreation Hall, as well, tables may be moved back toward sides of building.

Such other equipment for the comfort and pleasure of the workers may be provided according to individual need of Camp.

EQUIPMENT LIST FOR KITCHEN AND PANTRY

For a Camp of 30 People

3	kitchen spoons (cooking) .....$	.30
1	carving knife	.54
1	Dover egg beater 13".	.35
1	wire egg beater.....	.25
1	corkscrew	.15
1	can opener	.25
1	grater	.25
1	rolling pin	.45
2	strainers— one 8½ in. 40c one small, 15c.....	.55
1	potato ricer	.65
1	measuring cup (tin) ..	.10
1	apple corer	.19
3	small vegetable knives @ 20c.....	.60
2	frying pans, No. 4 steel	.50
6	sauce pans (cooking).	3.50
2	dishpans, 21 qt.....	2.50
6	tin pans	.90
1	coffee boiler, 10 qt....	2.00
6	bowls (small)	2.50
1	large mixing bowl, 8 qt.	1.25
1	butter jar, 4 gal.....	1.25
1	broom	1.00
1	dustpan	.50
1	tea kettle, No. 8.....	1.75
6	pie tins, No. 10 @ $1.25 doz.	.63
2	flat irons, 7-lb., @ 56c each	1.12
1	soup ladle, No. 11 tin..	.21
2	stoves— one 3 burner, oven and back ..... one 4 burner, oven and back	26.50 30.75
1	pepper shaker, glass..	.10
1	salt shaker, glass.....	.10
1	box for knives, forks and spoons	.75
1	clothes line, 25 yds....	.75
1	garbage can, No. 10..	3.00
1	doz. dish towels.....	3.50
½	doz. dish cloths.....	1.50
	clothes pins	.30

1	scrub pail, 12 qt.....	.52
1	scrub brush	.20
3	floor cloths	.50
2	dust cloths	.32
	cleaning cloths	.35
1	vegetable brush	.08
4	(1 doz.) muffin tins, @ 30c each	1.20
1	qt. measure	.35
1	3 qt. double boiler....	1.50
2	asbestos mats	.20
6	hand towels	2.00
1	hand basin	.63
2	qt. jars (storing).....	.40
1	soup kettle	2.75
1	food chopper (Universal)	1.50
2	lanterns, $1.00 each....	2.00
2	large tin boxes (bread and cake)	2.00
2	small tin boxes (dry staples) Grocer.	
2	yds. white cheese cloth (for drying foods and covering)	.24
3½	doz. large plates, @ $1.00 doz.	3.50
3½	doz. small plates, @ 90c doz.	2.25
3½	doz. butter plates (small), 60c doz....	1.50
3½	doz. glasses	3.15
3½	doz. cups and saucers, @ $2.50 doz.....	6.25
4	large platters, @ 45c each	1.80
4	sugar bowls, @ 40c ea.	1.60
4	milk pitchers, @ 40c ea.	1.60
4	water pitchers, @ 40c. each	1.60
6	cake plates, @ 15c ea.	.90
6	bread plates, @ 15c ea.	.90
8	vegetable dishes, @ 35c each	2.80
12	odd plates for jam, etc., @ 10c.....	1.20
3½	doz. forks, @ 50c doz..	1.75
3½	doz. knives, @ $1.75 doz.	6.13
3½	doz. spoons (tea), @ 25c doz.....	.88
3½	doz. spoons (soup), @ 50c doz.	1.75
16	extra large serving spoons	1.00
1000	paper napkins	125
1	bread knife	.35
20	pkgs waxed paper.....	1.00
1	wall soap dish	.35
1	hook for hand towels.	.06
½	doz. hooks for utensils	.36
2	chairs	2.50
2	tables	6.00
1	mop	.65
1	steamer for puddings..	1.25
8	peppers, @ $2.00 doz..	1.34
8	salts, @ $2.00 doz....	1.34
4	vinegar bottles, @ 25c.	1.00
30	cereal dishes, @ 80c doz.	2.00
3	coffee pots (3 qts.), $10.50 doz.	2.63
4	pitchers for kitchen, @ 30c each	1.20
1	teapot	.70
4	coffee rests	.40
1	doz. glass jars for lunch baskets	2.25
	Total	$175.51

EQUIPMENT LIST FOR SLEEPING QUARTERS

30 Army cots @ $3.50 each.....	$105.00
30 Java Kapak pillows @ $1.50 each.....	45.00
30 cotton pads or comforters @ $1.50 each.....	45.00
15 mirrors @ 85c. each.....	11.05
15 wash basins @ $3.60 doz.....	4.50
30 tooth mugs or glasses @ $1.80 doz.....	4.50
15 tables @ $1.00 each.....	15.00
30 folding camp chairs @ $1.25 each.....	37.50
30 iron pails (15 waste, 15 water) @ 55c each..	16.50
15 lanterns @ $1.25 each.....	18.75
30 soap dishes @ 10c. each.....	3.00
8 brooms @ $1.00 each.....	8.00
30 nettings and fixtures for beds @ $1.85 each...	55.50
8 mops @ 67c. each.....	5.36
1 rubbish can	3.50
Total	$378.16

NOTE:—Army cots are not recommended for autumn use out of doors.

LIST OF TOOLS FOR CAMP GARDENS FOR UNITS OF 10 TO 50

Tools Required	Unit of 10	20	30	40	50
Spading fork	1	1	1	2	2
Shovel—D-handle, round point	1	1	1	2	2
Rake—12-toothed, steel	1	1	2	2	2
Hoe—Blade about 7 x 2½ in.	2	2	3	3	4
Cultivator—5-tooth, Norcross pattern	1	1	2	2	3
Potato Hook	1	1	1	1	1
Trowel	2	2	2	3	3
Weeder—Lang's type	2	2	3	3	3
Watering Pot—2-gallon size	1	1	1	1	1
Crowbar—Light-weight No. 6-8	1	1	1	1	1
Seed Drill—"Planet, Jr.," or "Iron Age"	1	1	1	1	1
Cultivator—Hand, with wheel	0	0	1	1	1
Sprayer—Compressed air type	1	1	1	1	1
Wheelbarrow—Medium garden size	1	1	1	1	1

Supplies for Camp Gardens per Unit

1 cord (2½ tons) Stable manure.
200 lbs. Fertilizer (4% Am., 10% Phos. Acid).
200 lbs. Lime—Agricultural or Ground Limestone. (No lime to be spread on potato ground.)
6 rods Woven Wire Fencing for peas—4 ft. to 5 ft. wide.
25 stakes for Tomatoes—5 ft. to 6 ft. long.
60 poles for Beans—8 ft. long.
10 posts, 8 ft. long, 4 in. diameter, to support wire fencing.

This list was compiled by H. D. Phelps of the Extension Service, Massachusetts Agricultural College.

WELLESLEY COLLEGE TRAINING CAMP
COST OF FOOD—SEASON 1918

Computation made on:
36 days—Average 23 1/10 persons per day.
or
108 meals served to 2406 persons.

Dry Groceries	$69.35
Bakery	18.45
Fruit	43.34
Fish	19.71
Meat, Butter and Eggs	97.08
Milk	47.81
Vegetables	59.88
Total	$355.63

Cost for 23 1/10 persons per day	$9.87	4/5
" " 23 1/10 persons per meal	3.29	1/5
" " 1 person per day	.42	3/10
" " 1 person per meal	.14	1/10

NOTE:—All articles of food used were charged up at market price, when such food was donated to the Camp.

DESCRIPTION OF BARREL SHOWER

1. Erect a stand of two-by-fours, as follows: Make two frames three and one-half feet square each, using two-by-four lumber Place one frame on the ground and nail a 7 ft. length 2 x 4 post on each outside corner (four 7 ft. lengths in all). Nail the second frame at the other end or top of the four posts. Brace this structure by running one 2 x 4 diagonally from top to bottom of frame on three sides, and leave the fourth side unbraced for an entrance.
2. Set up this stand, taking care to have it level, and place two strong planks across the top of it to hold the barrel. Tack heavy unbleached muslin or old canvas or awning around three sides, and arrange a drop curtain for the front.
3. Prepare a full hogshead, molasses or other heavy barrel, as follows: Bore a hole in the bottom of barrel, and drive in a piece of 1-inch or ¾-inch lead pipe, which is about one foot in length, and has a wheel or lever valve on the end of it. Place the barrel on the plank. Take a large pail, or other old tin vessel, and drive holes in the bottom of it with a nail. Hang this pail on the barrel, so that the pipe goes into it, and at such a height that the valve comes just at the top of the pail.
4. The barrel shower is then ready for use. When a bath is needed, the valve is opened and the water runs through the holes in the pail: very much as though it were a real shower head.
5. The barrel can be filled by syphoning water from the ground through a hose, and it contains water for six or eight good baths.

NOTE: 1. The top of the barrel should be screened.
2. If procurable, a regular shower head may be used in place of the tin pail.
3. It is to be noted that showers provide the most economical use of water in bathing.

WELLESLEY COLLEGE TRAINING CAMP
DIRECTIONS FOR CARE AND DISINFECTION OF LATRINE

1. Box and board flooring to be brushed with broom to near the edge of box.
2. Box to be lifted off and placed close to wall on forward side. then sweepings brushed carefully into pit.

3. An armful of straw to be distributed into pit from end to end, and one pint of kerosene oil poured over carefully, so that none is sprinkled onto side of pit, but evenly distributed over the straw. A twist of paper is then lighted and dropped into the pit, preferably about the middle. After the material in the pit is burned, the ashes should be allowed to cool for about twenty minutes.
4. Then a light layer of straw is to be distributed evenly over the bottom of the pit and a half pint of oil sprinkled over this.
5. The box is then replaced carefully, to be sure it fits exactly into its casing, and the seats washed with water, in which Sulpho-Napthol (one teaspoonful to a pint) has been added.

NOTE: 1. Latrine should be disinfected as described above, every other day. The day between disinfecting, a few handfuls of lime should be thrown into the pit.
2. The process of disinfection is attended with dense smoke, and those performing the operation should be ready to get out of the building quickly after lighted torch is applied.
3. The object of leaving fresh straw and kerosene on top of the cooled ashes is to insure more complete incineration of each day's deposit.

DIRECTIONS FOR BUILDING CESSPOOL

To make a cesspool for 10 people, dig a hole 4 ft. in diameter and 4 ft. deep. (For 50 people the cesspool should be 6 ft. in diameter and from 6 to 8 ft. deep.) Fill the hole with rocks nearly to the top. Put a layer of hay or straw on the rocks and cover the whole with dirt level with the ground. The dirt keeps out odors and prevents the spread of flies. Connection to this closed pit is made by means of pipe or tile. Such a cesspool will remain sanitary for one season. If it is not used during the winter it will purify itself and be sanitary again in the spring.

NOTES ON SANITATION FOR CAMP USE

The instructions regarding sanitation, drawn up for the Wellesley College Training Camp by Major Creecy, commanding officer of the Marine Barracks, Washington, D. C., were prefaced as follows: "Nothing is more important to the success of a Woman's Land Army Camp than its sanitary arrangements. A little carelessness in these matters may be the cause of serious illnesses, even of deaths, and the Woman's Land Army cannot urge women to enlist for a service that is not safeguarded on the same principles as our National Army."

General Sanitary Instructions

1. All wastes, refuse and excreta should be disposed of so as to render them harmless, and to prevent pollution.

2. Care should be exercised in handling, preparing and serving food.
3. Adequacy of shelter for the women workers should be provided.
4. Proper drainage must be maintained.
5. A good supply of water for bathing and washing, and the maintenance of a pure supply of drinking water must be provided for.

Rules of Sanitation

1. **General**

   (a) A camp covering a period of several weeks should have tent floors where tents are used for sleeping quarters.

   (b) All underbrush should be cleared away.

   (c) Camp should be inspected or policed daily, and offenders against sanitation rules should be reprimanded.

   (d) Baise tent walls and air bedding and clothing daily, weather permitting.

   (e) Provide boxes or covered cans for camp refuse; do not permit food, slops, water, rags, paper, empty tins or trash or refuse of any kind to be thrown on the ground.

2. **Special**

   (a) Food and latrines must be protected against flies which are carriers of germs and pollution.

   (b) Food must be protected against dust.

   (c) Food must be protected against the sun; all decayed foods are sources of ptomaine and other poisons.

   (d) Never serve recooked or warmed over fish; almost sure to have cases of ptomaine resulting.

3. **Mosquitoes**

   (a) All outdoor sleepers should be provided with mosquito nets, and all houses should be carefully screened.

   (b) Do not allow pools of standing water to exist on camp premises. Either oil them or fill them in, to prevent mosquitoes from breeding.

4. **Refuse**

   (a) Burn all refuse in incinerator daily, or have it buried.

   (b) Keep kitchen refuse cans covered at all times. Strain solids out of dish water and put in garbage can.

   (c) Burn or bury all kitchen solids or have carted away for garbage.

   (d) Clean all mess tins thoroughly after each meal, and leave no greasy vessels about.

NOTE: Source of these notes—United States Marines.

SPECIFICATIONS FOR TENTS AND DIRECTIONS FOR THEIR CARE

Tents should be at least 9½x9½ ft. in size, to accommodate two people. Two in a tent is preferable to a greater number.

The standard Wall tent with extra fly, either of 10 oz. duck or of 8 oz. canvas, will be found convenient and durable.

If tent is not opened at both ends, there should be ventilators in the front and back walls of tent near the top. Tents opening at both ends are preferable.

Tents should be guyed to strong-backs made of two by four lumber or heavy posts, rather than to pegs. Directions for making strong-backs will be found in the Wellesley College Training Camp report under the heading "Tents."

The sides of tents should be rolled up daily in fair weather for the purpose of airing the sleeping quarters. After the tent sides have been wet by heavy rains, they should be left down until thoroughly dried out. Otherwise there is danger of mildew resulting.

Tent floors should be kept as free as possible, to allow of rapid daily cleaning. A rope strung from pole to pole at a height of about 6½ ft. from floor, will serve as a convenient and sanitary method of hanging towels and other articles.

Tent guy-ropes need frequent attention. They should be so adjusted as to keep the tent rigid against heavy winds, and the distance between fly and tent should be kept about one foot at the point where guy-ropes are attached to the end of the fly.

Care should be taken to level the tent floor, and to set the tent end-poles at perfect right angles to the floor, in order to insure maximum rigidity. Attention to this matter will facilitate the proper guying of tent, and will secure the safety of the tent against a very fierce wind storm.

Further information on tent usage may be found in the U. S. Army Handbook.

PHYSICAL EXAMINATION CARD
WELLESLEY COLLEGE TRAINING CAMP
WOMAN'S LAND ARMY OF AMERICA

Name **Examiner** **Age** **Date**

Development: well built deformity

Height Weight

Complexion: sanguine pale acne

Mucous membranes: pink pale Haemoglobin per cent

Tongue: clean coated Teeth: lacking cavities

Eyes: conjunctivitis blepharitis Pupils: equal react to light accom

Ears: hearing good impaired cerum plug

drum-membranes normal retracted thickering inflamed perfor

Recommendations

Nose and Throat: catarrh mouth-breathing

Septum: negative ulceration perforation deviation spur

Lower turbinate: negative congestion hypertrophy atrophy

Polypi: Adenoids

Pharynx: negative pharyngitis granular atrophic

Tonsils: negative tonsillitis hypertrophy

Recommendations:

Thyroid Gland: palpable enlarged isthmus lobes measurement

Lymph nodes: enlarged cervical axillary epitrochlear inguinal

Hands: tremors fingers clubbed

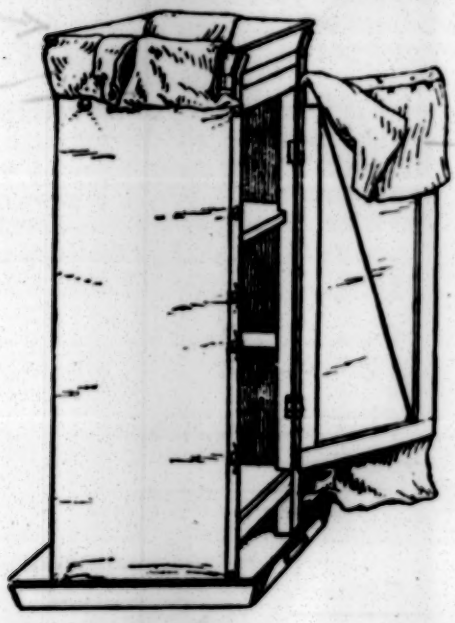
Radial pulses: regular irregular synchronous tension

(SEE OTHER SIDE)

(Reverse Side)

Chest: inspection: negative abnormality
palpation: negative abnormality
Lung: percussion: negative abnormality
ausculation: negative abnormality
Heart: inspection: negative abnormality
palpation: apex beat interspace cm. from mid-sternal line
thrill palpitation in mid-clavicular line
percussion: size: normal enlarged Position: normal displaced
ausculation: heart sounds: regular irregular intermittent
valves: normal murmurs: location time
transmitted upward to axilla to back
Blood pressure: Syp. Dia.
Remarks:
Abdomen: hernia tumor ascities liver palpaple spleen palpable
Back: straight kyphosis scoliosis
Legs: straight bowed knocked-kneed
Patellar reflex: present active exaggerated lacking
Feet: pronated Longitudinal arches: high medium low flat
anterior arches: normal flat great toe joint: enlarged inflamed
Strength Tests Date Date
Chest expansion Student considers
Fore arm right self very strong moderately
Fore arm left Apparent health
Legs Grade

ICELESS REFRIGERATOR



An iceless refrigerator consists of a wooden frame, with a hinged door. This frame and door is covered on the outside, first with rustless screen wire, and then with a canton flannel jacket that is kept in place by patent snappers, and terminates at the top in tails or wicks, which rest in a pan of water.

The inside temperature of an iceless refrigerator can be maintained at about 55 degrees Farenheit. The heat is reduced in the inside, by means of evaporating water, and thus a lowered temperature is secured. A good current of air to evaporate the water is essential, and consequently the refrigerator must not be placed against a building. It operates to best advantage when stationed where a free circulation of air can be assured. If it is necessary to place it in the sun in order to secure a good current of air, it may be screened overhead with old awnings, and will be found to work better under these conditions than when in the shade pocketed near a building.

Construction

Make a wooden frame 3½ feet high by 15 inches wide, with a solid bottom and top. The bottom should be placed in the frame about four inches from the ground, leaving legs to elevate the bottom from the drip-pan or ground surface, as the case may be. A shallow pan to contain water should be placed on top. The frame should contain two movable shelves about 12 to 15 inches apart.

Tack rustless screen wire around three sides of the frame, and hinge on a door covered with screening. Then make a covering of white canton flannel to fit the frame, putting the smooth side out. This covering should be arranged to go on by means of snappers. In order to permit a free opening of the door, one row of snappers

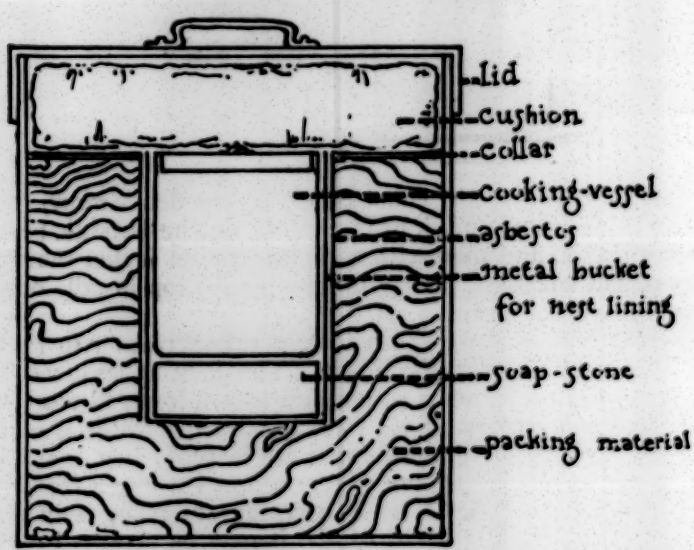
should be put on the edge of the door next to the opening, and the other just opposite the opening, leaving the hem to project over the crack at the door opening. Also snap this covering around the top edge.

Then sew two double strips on the top of the covering at each side, each strip half the width of each side, and long enough to extend into the pan to soak up the water. These strips serve as wicks.

If the refrigerator is to set on a porch, it should set in a pan. Otherwise a bottom pan is not necessary, but it is essential to have the refrigerator so constructed as to rest on legs that will elevate it above the floor.

The above dimensions have been found most practical, and it is advised not to change them. If a larger capacity is desired, two or more refrigerators may be used.

FIRELESS COOKER



A fireless cooker may be said to consist of seven parts as follows: An outside container with a lid, a cooking vessel with a lid, an inside asbestos covered metal container with lid, a cardboard collar to fit over the inside metal container, a cushion for top of cooking vessel, two soapstone disks, and a packed space.

Specifications for Parts

1. **Outside Container**

This container may be made of wood or of metal. It must have a tight lid or cover. The size of container will depend upon size of cooking vessel. It should be at least fifteen inches deeper than the cooking vessel, and should be large enough to allow a space of at least four inches all around between it and the walls of the outside container.

Any strong wooden box may be used, or a wooden firkin, or a

large tin box or container, or a new garbage can. If a wooden container is used, the sides should be lined thickly with newspaper, and the lid should be hinged and provided with a front fastening.

2. **Cooking Vessel**
This vessel should have a closely fitting lid, and may be of any metal, preferably enamel or aluminum.

3. **Inside Container**
This container may be of any metal. It should have straight sides and a lid. It is covered with asbestos, and encloses the cooking vessel. Between it and the outside container is a non-conducting packing material on top, bottom and all sides, to a depth of at least three inches.

4. **Cardboard Collar**
This collar fits snugly into the outside container, and around the top of the inside container. It holds the packing material in place.

5. **Cushion**
This cushion is to cover the whole top of cooker, fitting neatly into the outside container just under the lid. It may be made of any heavy twilled material, and should be stuffed with the packing material used as a non-conductor between the two walls of metal.

6. **Soapstone Disks**
Two of these disks are necessary for certain kinds of cooking. One is placed on top, and the other underneath the inside metal material used as a non-conductor between the two walls of metal. container. They may be purchased at a hardware store.

7. **Packed Space**
This space comes between the inside and the outside containers. It should be packed with excelsior, sawdust, hay, cork, paper shavings, or any other good non-conducting material that can be tightly compressed. This packing material forms a sort of nest for the cooking vessel.

Instructions for Making Fireless Cooker

First, line the outside container if it is of wood, and then pack the bottom of it with packing material, to a depth of three or more inches. This packing must be as compact as possible.

Cut a piece of asbestos large enough to cover the outside of the inside container or bucket, and tie the asbestos on securely. Then cut a circle of asbestos two inches larger in diameter than the inside metal container, and place this in the center of the bottom packing material.

Place the inside asbestos covered container in the center of the asbestos circle, and holding it in position, pack in the space all around between the inside and outside containers with the packing material.

This packing should come to within one-half inch of the top of the inside container. The space must be very tightly packed, as the efficiency of the cooker depends to a great extent upon securing a packing which will not permit the heat to escape from the inside container.

Then cut out of a heavy piece of cardboard a collar, as follows: First out of the center of the cardboard cut a hole which will let the cardboard fit closely over the sides of the inside container. Cut this cardboard to fit into the outside container, so that it slips into the container just touching the inside walls all around very snugly. This collar should be set down on top of the packing to hold it in place.

Finally, make a cushion of twilled material three inches thick, to serve as a top pad. It is best to cut two circular pieces of twill the size of the inside measurement of the outside container, plus one-half inch all around for seams. Then cut a straight strip four inches wide, and seam this strip around the circular pieces to join them. Leave open a small space, and stuff the cushion cover with the packing material. Then close opening.

Notes

The soapstone disks make it possible to roast and bake in the fireless cooker. They are needed for cooking food that can be cooked in water, such as pot-roasts, stews, cereals, beans, etc. The disks can be heated hotter than the boiling point of water, and should be heated very hot, though not "red hot," as they may crack. These disks can be used with safety if the fireless cooker is carefully made, according to directions.

The food and the disks must be very hot when put into the cooker. In the case of food that requires long cooking it is sometimes necessary to reheat the food, before it can be sufficiently cooked.

The smaller the quantity of food, the quicker it cools. Therefore, in order to increase the heat for cooking small quantities, use the disks or put the food into a very small vessel and after setting this into the regular cooking vessel, surround it with hot water.

For further particulars about fireless cookers, and for receipts, address the State Agricultural Colleges, or the Department of Agriculture for Farmer's Bulletin No. 771.

LIST OF WELLESLEY COLLEGE TRAINING CAMP MENUS

In preparing the Camp Menus no attempt was made to serve a definite amount of protein, carbohydrate, fat, etc., at each meal, as we do not consider this method practical, either from the economic viewpoint, or from the viewpoint of producing attractive and satisfying meals. However, the combined three meals of each day were planned to form a wholesome and adequate day's ration.

By preparing foods in proper quantities we avoided too many made-over dishes and made possible a more varied diet. It is to be noted that left-overs have to be utilized before they spoil, and we advise making the food as attractive to the eye as possible by giving attention to color combinations. Such combinations, for instance, as fish, boiled potatoes, and boiled cabbage are very monotonous and unappetizing. Attention to pleasing color schemes is more necessary than is generally supposed, where an attempt is made to provide satisfying meals.

The Camp menus were prepared by Miss Holdahl, our Camp Dietitian, with reference to the prevailing war conditions, but the food problem for the coming season will be found much simpler. Wheat flour makes cooking much easier, and the results are more palatable. The use of sugar instead of corn syrup reduces the expense. Butter substitutes were used in cooking, and are still recommended, as they reduce the expense and are very satisfactory. For the table, butter was used, and should not be eliminated. We served about ½ ounce of butter for each of two daily meals (usually breakfast and luncheon). Any of the approved brands of milk powder or of evaporated or condensed milk may be used in cooking.

The following skeleton menus are given in order to assist in planning the daily balanced ration:

SKELETON MENUS

Breakfast

1. Fruit (raw or stewed).
2. Cereal and milk.
3. Bread, in the form of muffins, toast, etc.
4. Butter.
5. Hot beverage.

Note that eggs, fish, or a small amount of meat may be added for additional flavor and staying qualities. When added, the quantity of cereal served should be cut. If not added, workers should be allowed as much cereal as they desire.

Box Lunches

1. Bread in some form.
2. Butter.
3. Vegetable or Fruit Salad, or
   Jellied meats, cheese, fish, salad or eggs in any form.
4. Dessert. (Cake, pie or fruit.)
5. Beverage. (Milk can often be procured at the farm, and is one of the best lunch drinks.)

Note that a small quantity of both numbers 3 and 4 may be needed to round out the day's ration. Where a heavy protein dinner is planned this kind of food should be cut in the lunch menu. Moist foods should be served for luncheon so far as practical. The bread and butter may be combined with some sort of filling for sandwiches.

Dinner

1. Stock soup or cream soup.
2. Main course of either meat, fish, eggs or legumes.
3. Potatoes.
4. Vegetables, especially green ones.
5. Dessert. (This may be fruit, cake with sauce, pie or pudding, etc. Whether a light or a heavy dessert is served should depend upon the rest of the meal.)

NOTE:—Bread should generally be included in this meal. A beverage may also be added, and should be served when the meal consists of a few hearty courses without fruit or with a reduced amount of green vegetables. When a generous allowance of milk is made for either breakfast or luncheon, the allowance of butter may be cut for these meals and added to the dinner ration.

NOTES BY DR. MARY SCHWARTZ ROSE

The following notes have been prepared by Dr. Mary Schwartz Rose of Teachers' College, New York, and are printed in connection with the above skeleton menus to explain the various food values.

Fruit—Raw or stewed

Fruits are laxative, valuable for mineral salts, and appetizing qualities. With sugar, they are a considerable source of energy.

Cereal and Milk

Cereals are one of the great sources of fuel, also where bran-coats are present, they have some laxative property. They should never be omitted from breakfast.

Milk yields protein and mineral salts, besides being a good source of fuel. It is highly important for Vitamines, especially the fat soluble one. (Vitamines are absolutely essential to health.)

Bread, etc.

One of the main sources of fuel—in form of starch, mostly. Note that muffins should be baked crisp on the outside.

Butter

Butter is used to increase fuel value, and give diet "staying" qualities. If milk and eggs are not freely used butter is needed for the fat soluble vitamine.

Hot Beverage

Mainly for palatability. The use of cocoa is a good way of introducing more milk into the diet.

Vegetables

Vegetables are very important for vitamines and mineral salts. Most of them also help to keep the diet laxative. The starchy and sweet ones, such as potatoes, carrots, beets, parsnips, etc., contribute considerable fuel.

Meat or Fish

Meat or fish once a day helps to keep the protein in the diet right. It is appetizing, and when fat, has excellent staying qualities. As protein comes also from eggs, milk, cheese, peas, beans and nuts, no large amount of meat is required. As a large amount of protein makes a meal heating, a heavy meat meal should not come in the middle of the day, nor on a very hot day.

Desserts

Desserts may be made to add very much to the fuel value of the diet when made of milk, cereals, dried fruits, and possibly eggs. Cake and fruit may take the place of a cereal pudding, but will not be quite so substantial.

With Dr. Rose's permission, we quote directly from her "Laboratory Hand-Book for Dietetics," page 70:

"In judging the menus, the following general rules for the making of a menu should be borne in mind:

"1. Conceive of the whole day as a unit, rather than the individual meal.

"2. Endeavor to distribute the protein, fat and carbohydrate through the day, so that no meal will have a striking preponderance of one kind of foodstuff.
For example, meat served with macaroni and cheese concentrates the protein in one meal, potatoes with rice concentrates the starch, and fried potatoes and pie concentrates the fat.

"3. With the exception of a few such staples as bread, butter and milk, try to avoid serving any food in the same form twice in the same day and serve it preferably only once in any form.

"4. Try to avoid serving any food which gives character to a dish twice in the same meal, even in different forms. Do not, for instance, select tomato soup and tomato salad for the same meal.

"5. At each meal, seek contrasts between successive courses, a bland course being followed by a more highly flavored course, and vice versa, to give pleasing rhythm.

"6. In each course endeavor to have harmonious combinations, as to flavor, color, form and texture.

"7. As the number of courses increases, decrease the number of dishes and size of the servings in each."

MENUS

The Wellesley College Training Camp Menus and Recipes were prepared by Miss Stena Haldahl, Camp Dietitian.

Sunday, August 18th

Breakfast:
- Boiled rice with dates
- Top milk
- Buttered toast
- Coffee with cream

Dinner:
- Roast beef
- Brown gravy
- Pittsburgh potatoes
- Buttered green beans
- Grape tapioca
- Lace cookies

Supper:
- Creamed corn
- Graham bread
- Cheese
- Prune ginger bread
- Russian tea

Monday, August 19th

Breakfast:
- Mock cream of wheat
- Milk
- Drop biscuits—butter
- Scrambled eggs
- Coffee

Luncheon:
- Vegetable salad with nuts—potatoes, beans, nuts.
- Bread
- Butter
- Trilbies
- Cocoa

Dinner:
- Baked hash
- Buttered carrots
- Bread and butter
- Apple dumplings, lemon sauce

Tuesday, August 20th

Breakfast:
- Sliced peaches
- Oatmeal—top milk
- Buttered toast
- Coffee

Luncheon:
- Graham cream cheese sandwiches
- Cabbage salad
- Plain drop cookies
- Coffee jelly

Dinner:
Steamed eggs in potato nests
Boiled corn on cob—butter
Lettuce salad
Apple pie

Wednesday, August 21st

Breakfast:
Stewed prunes
Cornmeal mush—milk
Danish rolls—butter
Cocoa

Luncheon:
Jellied meat
Whole wheat bread sandwich
Apple-butter sandwich
Soft molasses cookies

Dinner:
Baked potatoes
Creamed dried beef
Spinach
Chocolate bread pudding
Custard sauce

Thursday, August 22nd

Breakfast:
Apple sauce
Hominy—milk
Bread and butter
Coffee

Luncheon:
Minced ham sandwiches
Sliced tomatoes
Drop doughnuts
Milk

Dinner:
Hamburg steak
Potatoes Bohemian style (fried onions piled on mound of mashed potatoes)
Crumb pudding, maple sauce

Friday, August 23rd

Breakfast:
Soda scones
Mock cream of wheat
Ginger apple sauce
Coffee

Luncheon:
Shredded cabbage with mayonnaise dressing
War bread—butter sandwich
Cheese
Nut cookies
Milk

Dinner:

Baked haddock (stuffed)
Creamed potatoes
Swiss chard
Sliced tomatoes with cream dressing
Spice cake

Saturday, August 24th

Breakfast:

Hominy with raisins—top milk
Buttered toast
Coffee

Luncheon:

Flaked fish salad
Bread and butter sandwiches
Peanut butter cookies
Tea

Supper:

Tomato bisque—croutons
Toasted cheese sandwiches
Corn roasted in husk
Baked apple with Caledonia whip

Sunday, August 25th

Breakfast:

Bananas
Oatmeal and milk.
Toast (buttered)
Coffee—cream

Dinner:

Baked chicken, stuffing
Mashed carrots
Riced potatoes
Gravy
Chocolate pie

Supper:

Peanut butter sandwiches
Blueberry cakes
Milk

Monday, August 26th

Breakfast:

Boiled rice and milk
Steamed eggs on toast
Coffee

Luncheon:

Bacon, egg and lettuce sandwich
Drop doughnuts
Milk

Dinner:
Potatoes stuffed with sausages
Beets with sour sauce
Indian pudding
Lemon sauce

Tuesday, August 27th

Breakfast:
Sliced peaches
Oatmeal
Graham muffins
Top milk

Luncheon:
Bread and butter sandwiches
Flaked fish salad
Apple pie
Milk

Dinner:
New England boiled dinner
Corned beef
Cabbage
Turnips
Carrots
Potatoes
Apple sauce

Wednesday, August 28th

Breakfast:
Hominy with bananas
Top milk
Graham drop biscuits
Coffee

Luncheon:
Chopped meat sandwich
Buttered rolls filled with apricot marmalade
Milk

Dinner:
Peppers stuffed with corn
Cream sauce
String beans
Mashed turnips
Waffles—syrup

Thursday, August 29th

Breakfast:
Baked apples
Rolled oats—top milk
Buttered toast
Coffee

Luncheon:
Orange marmalade sandwiches
Cheese
Oatmeal drop cookies
Milk

Dinner:
Baked beans
Italian sauce
Brown bread—butter
Apple stuffed with banana (baked)

Friday, August 30th

Breakfast:
Rice with dates—top milk
Corn bread—butter
Coffee

Luncheon:
Hunter's salad
Graham bread
Sweet scones
Cocoa

Dinner:
Cod, baked with Creole sauce
Riced potatoes
Sliced cucumbers
Plain blanc mange with Camp chocolate sauce

Saturday, August 31st

Breakfast:
Rolled oats—top milk
Buttered toast
Plum butter
Coffee

Luncheon:
Fish salad
Bread and butter sandwich
Creamy rice pudding
Drop cookies

Dinner:
Frankfurters
Creamed potatoes
Sliced cucumbers
Dutch cake with whipped cream

Sunday, September 1st

Breakfast:
Scrambled eggs
Oatmeal bread—butter
Scones
Coffee

Dinner:
Roast beef
Brown gravy
Riced potatoes
Boiled carrots
Peach shortcake

Supper:
Potatoes with cheese sauce
Sliced tomatoes
Bread—butter
Spice cake—tea

Monday, September 2d

Breakfast:
Apple sauce
Oatmeal
Graham biscuits
Coffee—top milk

Luncheon:
Sandwiches—Olive, Cheese and Pimento, Orange marmalade
Apples
Milk

Dinner:
Sliced cold beef roast
Whole boiled potatoes
Creamed carrots
Sliced peaches
Blueberry cakes

Tuesday, September 3rd

Breakfast:
Cream of rye—top milk
Custard corn cake—butter
Plum butter
Coffee

Luncheon:
Potato salad
Quick nut bread
Jelly cookies
Cocoa

Dinner:
Potataes a la Virginia (bacon and creamed potatoes)
Boiled corn on cob
Sliced tomatoes
Bread and butter
Peaches

Wednesday, September 4th

Breakfast:
Rolled oats—top milk
Scrambled eggs
Buttered toast
Coffee

Luncheon:
Bread and butter sandwiches
Jellied beef
Baked apple, stuffed with raisins

Dinner:
Corn pudding—drawn butter
Sliced cucumbers on lettuce—French dressing
Oatmeal bread
Plain cake with Camp frosting

Thursday, September 5th

Breakfast:
Mock cream of wheat—top milk
Apple corn bread—butter
Coffee

Luncheon:
Sandwiches—Oatmeal bread filled with peanut butter
Bran bread with marmalade
Apples
Cocoa

Dinner:
Lamb stew
Baked potatoes
Tomato jelly with mayonnaise dressing
Pain drop cookies

Friday, September 6th

Breakfast:
Oatmeal—top milk
Scrambled eggs
Buttered toast
Coffee

Luncheon:
Cheese sandwiches
Tomato jelly
Jam jumbles
Milk

Dinner:
Creamed salt codfish
Riced potatoes
Sliced cucumbers with French dressing
Drop cakes
Cocoa

Saturday, September 7th

Breakfast:
Cream of maize with dates
Hot graham bread
Coffee

Luncheon:
Baked beans
Brown bread
Apple sauce
Iced coffee

Dinner:
Poached eggs
Creamed potatoes
Corn on cob—butter
Bread and butter
Grapes

Sunday, September 8th

Breakfast:
Peaches
Scrambled eggs
Buttered toast
Coffee

Dinner:
Beef loaf—brown gravy
Riced potatoes
Sliced tomatoes with French dressing
Sea moss blanc mange
Cream

Supper:
Scalloped corn
Bread and butter
Raisin cookies

Monday, September 9th

Breakfast:
Apples
Boston baked beans
Bread and butter
Coffee—cream

Luncheon:
Sandwiches—peanut butter, strawberry jam
Oatmeal cookies
Bananas
Cocoa

Dinner:
Potatoes with cheese sauce
Corn roasted in husks—butter
Lettuce salad
Pears

Tuesday, September 10th

Breakfast:
Apple butter
Mock cream of wheat
Corn bread—butter
Coffee or milk

Luncheon:
Minced ham and lettuce sandwiches
Raisin filled cookies

Dinner:
Roast leg of lamb—brown gravy
Mushroom sauce
Pittsburgh potatoes
Tomatoes—Mayonnaise dressing
Bellevue pudding
Sunshine sauce

Wednesday, September 11th

Breakfast:
Cream of rye—top milk
Coddled eggs
Drop biscuits
Coffee

Luncheon:
Sandwiches—1. Cheese and olive. 2. Jam
Marshmallow molasses cake
Fruit

Dinner:
Vegetable soup
Rechauffed meat with border of Turkish pilaff
Cabbage salad
Lemon cookies

Thursday, September 12th

Breakfast:
Oatmeal—whole milk
Brown bread with raisins—butter
Coffee

Luncheon:
Sandwiches—cheese, marmalade
Potato salad
Coffee

Dinner:
Creamed dried beef
Buttered carrots
Boiled corn
Baked potatoes
Celery
Bananas

Friday, September 13th

Breakfast:
Hominy with dates—top milk
Toast (buttered)
Coffee

Luncheon:
Sandwiches—Egg and mustard. Marmalade
Tomato jelly
Bananas

Dinner:
Baked sausage
Vegetable hash
Baked apples
Bread and butter

Saturday, September 14th

Breakfast:
Stewed prunes
Oatmeal—top milk
Johnny cake
Coffee

Luncheon:
Bread and butter sandwiches
String bean salad
Spice cake

Dinner:
Tomato bisque—croutons
Fried egg plant
Corn on cob—butter
Chocolate pudding
Cream

Sunday, September 15th

Breakfast:
Corn meal mush—top milk
Coddled eggs
Buttered toast
Coffee

Luncheon:
Sandwiches—Bread and butter. Marmalade. Jellied meat—
one of each for each person
Molasses cake
Milk

Dinner:
Baked haddock
Cream sauce with hard boiled eggs
Mashed potatoes
Tomatoes with French dressing
Pears

Monday, September 16th

Breakfast:
Sliced bananas
Cream of rye
Drop biscuits
Butter
Coffee

Luncheon:
Sandwich (sliced beef, pickle and graham bread)
Baked apple
Cocoa

Dinner:
Boston baked beans
Brown bread
Mustard pickles
Tomato jelly salad
Coffee, Bavarian cream

Tuesday, September 17th

Breakfast:
Baked apples
Cream of rye—cream
Buttered toast
Coffee

Luncheon:
Sandwiches—cheese, ginger (preserved), raisins
Cabbage salad
Coffee

Dinner:
Ham baked in milk
Baked potatoes
Buttered beets
Suet pudding
Lemon sauce

Wednesday, September 18th

Breakfast:
Hominy with bananas
Cinnamon toast
Coffee

Luncheon:
Potato and celery salad
Ham sandwiches
Raisin cookies
Milk

Dinner:
Creamed haddock
Riced potatoes
Baked tomatoes stuffed with rice
Bread and butter
Nut cookies

Thursday, September 19th

Breakfast:
Pears
Corn meal mush—top milk
Steamed eggs on toast
Coffee

Luncheon:
Egg sandwiches
Potato and cucumber salad
Oat meal cookies
Hot coffee

Dinner:
Roast lamb
Brown gravy
Franconia potatoes
Buttered carrots
Apples Italian style

Friday, September 20th

Breakfast:
Shredded wheat
Scones
Coffee

Luncheon:
Sandwich—lamb with mayonnaise dressing flavored with a little mint
Carrot and potato salad
Drop doughnuts

Dinner:
Hamburg cakes with brown sauce
Potatoes cooked in their jackets
Corn roasted in husks
Steamed pudding
Sunshine sauce

Saturday, September 21st

Breakfast:
Shredded wheat with peaches
Cinnamon rolls—butter
Coffee

Luncheon:
Bacon and lettuce sandwiches
Rusks
Jelly doughnuts
Milk

Dinner:
Ham and sliced potatoes baked in milk
Boiled corn
Lettuce salad
Apple dumplings, hard sauce

Note:—An unlimited quantity of food was served each person, and several helpings of cereal were usually taken for breakfast. When a beverage was not served for luncheon, the workers procured milk at the farm, and it was always procurable at camp when home for luncheon.

RECIPES

WELLESLEY COLLEGE TRAINING CAMP

(Quantities indicated will serve thirty people)

Trilbies

2 Cups oleo
3 Cups sugar
3 Eggs
1½ Cups sour milk
1 Teaspoon soda
1 Teaspoon salt

Cream oleo and sugar, add well beaten eggs and salt, then 1 cup of flour sifted with soda and enough more flour to make as soft a dough as can be handled. Roll out, cut in rounds, place in pan. Put a teaspoonful of jam or conserve on each one. Place another round on top and press edges together. Bake in moderate oven.

Custard Sauce

1½ Qts. milk (scalded)
4 Eggs
½ Cup sugar
2 Teaspoons vanilla
¼ Teaspoon salt

Beat eggs thoroughly, add sugar and salt, then pour hot milk slowly on to them. Cook in double boiler until mixture thickens. Stir constantly. If cooked too much mixture will curdle. Add vanilla, place top of double boiler in cold water and beat custard until smooth.

Drop Doughnuts

3 Eggs
1½ Cups sweet milk
1 Teaspoon salt
1 Cup sugar
3 Teaspoons baking powder
Flour to make drop consistency (about 4½ cups).

Beat eggs, add sugar, milk and salt, then flour and baking powder. Fry in deep fat. Drop from teaspoon holding it close to fat. The dough may be folded around a small piece of jelly with two teaspoons making jelly drop doughnuts.

Nut Cookies

2 Cups sour milk
2 Cups sugar
1 Cup oleo
2 Eggs
½ Teaspoon salt
6 Scant cups flour
2 Teaspoonfuls soda
1 Teaspoon cream of tartar
2 Teaspoon vanilla
¾ Cup chopped nuts

Mix and sift dry ingredients. Mix sugar and oleo. Add beaten eggs and flour with nuts and milk alternately. Drop by teaspoonfuls on oiled tin. Bake in hot oven.

Caledonia Whip

1 Egg (white)
1 Tumbler of jelly

Place in deep bowl and beat with Dover egg beater until stiff.

Blueberry Cakes

1 Cup oleo
½ Teaspoon salt
2 Cups sugar
4 Eggs
2 Cups milk
3 Tablespoons baking powder
5 Cups sifted flour
1 Quart blueberries

Cream oleo, add sugar and salt, then well-beaten eggs and milk; sift flour and baking powder and mix into it the blueberries and add to mixture. Bake in muffin tins.

Potatoes a la Virginia

¼ Pound bacon cut in squares
2 Quarts milk (scalded)
5 Quarts diced potatoes
1 Cup flour
Salt and pepper to taste

Try out bacon, skim pieces from fat, add flour, cook. Add milk gradually and stir until smooth. Pour over potatoes; garnish top with pieces of bacon and set in oven to heat through.

Marshmallow Molasses Cake

Cut molasses cake or gingerbread in squares. Split each square in two; place a spoonful of marshmallow cream on bottom and replace top.

Potatoes Stuffed with Sausage

Peel even-sized potatoes. Remove centers with an apple corer. Place a sausage in each one and put in an oiled pan. Bake 1¼ hours; baste occasionally.

Quick Nut Bread

1¼ Quarts corn meal
2½ Quarts graham flour
1¼ Quarts pastry flour
2½ Cups molasses
2½ Cups brown sugar
3⅓ Tablespoons soda (level)
4 Teaspoons salt
2½ Cups chopped nuts
1½ Quarts sour milk

Mix dry ingredients, add molasses and sour milk, beat well, add nuts; bake in shallow loaves in moderate oven from 45 minutes to 1 hour.

Breakfast Coffee

4 Cups coffee
8 Quarts water
Egg shells

Tie coffee in bag or cheesecloth so as to give plenty of room to swell. Let soak in cold water over night in coffee boiler. In the morning bring to a boil slowly, boil 3 to 5 minutes, pour in a cup of cold water, let clear, put in coffee pots. Reheat before serving.

Tea

3 tablespoons tea

Scald teapot. Pour 3 quarts of boiling water over tea leaves; let steep 3 minutes.

Cocoa

1 Cup cocoa
1 Pint luke warm water
2½ Quarts boiling water
4 Quarts hot milk

Mix cocoa and luke warm water, until smooth—pour on boiling water, boil 5 minutes, add to hot milk. Beat with Dover egg beater until foamy to prevent scum forming. Cook 20 to 30 minutes.

Potato Salad

8 Quarts diced potatoes
2 Cucumbers diced

Marinate in the following mixture: ¼ cup oil, ⅛ cup vinegar, salt, pepper, 1 teaspoon onion juice.

Mayonnaise Dressing

1 Teaspoon mustard
1 Teaspoon sugar
2 Teaspoons salt
½ Teaspoon paprika
¼ Teaspoon pepper
1 Pint mayola
1 Tablespoon vinegar
2 Tablespoons lemon juice
2 Eggs (yolks)
2 Eggs (whites)

Mix dry ingredients, stir in yolks of eggs, then beat in drop by drop a little oil, using an egg beater; when the mixture begins to thicken, add a few drops acid, then more oil, and so continue, alternating, until all the oil is used. If oil is added too rapidly the mixture will curdle. Just before serving, add stiffly beaten whites.

Drop Cookies

¼ Cup shortening (melted)
1 Cup sugar
Add
⅓ Cup water
1 Cup molasses
1 Tablespoon vinegar

Mix and add to the above:

2 Cups ground rolled oats
1½ Teaspoons salt
2 Cups barley flour
1 Tablespoon ginger
1 Tablespoon soda

Drop from tablespoon on greased pan. Bake in moderate oven.

Boiled Rice with Dates

5 Cups rice
4 Tablespoons salt
6 Times the amount of water

Wash rice thoroughly, put into boiling water and cook until soft; drain; pour boiling water through it to separate kernels; add 2 packages of chopped dates.

Roast Beef

12 lbs. Sear in hot oven, reduce heat. Roast 4 hours.

Pittsburg Potatoes

1 peck, parboiled with skins on. Peal and finish baking in oven.

String Beans

1 peck. Prepare and cook in boiling salted water until tender.

Tapioca Pudding

1 Bottle grape juice
½ Teaspoon salt
2 Cups minute tapioca
1 Cup karo
2 Quarts boiling water

Cook tapioca in double boiler until transparent; add 1 bottle grape juice, karo and ½ cup of sugar. Serve cold wih milk.

Lace Cookies

2 Cups rolled oats
½ Teaspoon salt
½ Cup white karo
1 Egg
1 Pound melted oleo
1 Teaspoon almond flavoring

Combine wet and dry ingredients. Drop in greased tin. Spread like lace. Bake until done.

Graham Bread

3 Quarts graham flour
1½ Quarts milk
1 Tablespoon salt
½ Cup karo
8 Tablespoons baking powder
3 Eggs
6 Tablespoons shortening

Combine wet and dry ingredients. Bake in shallow pans. Pour in to the depth of 1 inch. Bake about 30 minutes.

Ginger Cake

3 Cups molasses
3 Teaspoons soda
1½ Cups boiling water
3 Teaspoons ginger
1 Quart graham flour
1½ Teaspoons cinnamon
¾ Quart barley flour
1½ Teaspoons salt
¾ Cups melted shortening

Combine wet and dry ingredients. Bake 40 minutes or until done.

Mock Cream of Wheat

1¼ Quarts white corn meal
5 Quarts boiling water
1½ Tablespoons salt

Add corn meal to boiling water, slowly boil one hour in open kettle.

Drop Biscuits

2 Quarts barley flour
1 Quart corn flour
¾ Cup shortening
8 Tablespoons baking powder
2 Tablespoons salt
4½ to 5 Cups milk or milk and water

Mix and sift dry ingredients, work in shortening with tips of fingers. Add liquid gradually, mix with knife to soft dough that can be dropped from spoon without spreading. Drop by spoonful, ½ inch apart, on well greased pans. Bake 15 minutes.

Scrambled Eggs

1 Quart milk
2 Dozen eggs
½ Cup oleo
1 Tablespoon salt

Heat milk and oleo in double boiler; when hot, add well beaten eggs and salt; cook until it thickens, stirring and scraping mixture from sides as fast as it forms.

Cottage Pudding

1½ Quarts barley flour
½ Quarts graham flour
1 Cup corn flour
1 Teaspoon salt
1 Cup sugar
5 Tablespoons baking powder
⅔ Cup melted oleo
4 Eggs (yolks)
6 Cups milk

Combine the above ingredients and then add well beaten whites of eggs last. Bake in medium oven.

Chocolate Sauce

1 Can sweetened condensed milk
½ Cup cocoa
4 Tablespoons butter

Put into a bowl and set in the top of a tea-kettle for a few minutes—then add 1 teaspoonful vanilla and spread on cake.

Baked Hash

Add enough potatoes to chopped beef to make 10 qts. in all. Saute one cup minced onion in ¼ cup Crisco until a light brown. Add to hash, moisten with left-over gravy. Season with salt and pepper; oil bottom and sides of square pans—put in hash, packing in well. Bake in oven until bottom and sides are brown and crisp. Turn out on platter with brown side uppermost.

Boston Cookies

1 Cup oleo
½ Cup karo
½ Cup of molasses
2 Eggs
1 Teaspoon soda
2 Tablespoons hot water
3 Cups graham flour
1 Teaspoon cinnamon
1 Cup chopped raisins

Drop on oiled tin and bake until done.

Oatmeal

2 Quarts rolled oats
4 Quarts boiling water
2 Tablespoons salt

Cook for one hour.

Mix dry ingredients, stir in yolks of eggs, then beat in drop by drop a little oil, using an egg beater; when the mixture begins to thicken, add a few drops acid, then more oil, and so continue, alternating, until all the oil is used. If oil is added too rapidly the mixture will curdle. Just before serving, add stiffly beaten whites.

Drop Cookies

¼ Cup shortening (melted)
Add
1 Cup molasses
1 Cup sugar
⅓ Cup water
1 Tablespoon vinegar

Mix and add to the above:

2 Cups ground rolled oats
2 Cups barley flour
1 Tablespoon soda
1½ Teaspoons salt
1 Tablespoon ginger

Drop from tablespoon on greased pan. Bake in moderate oven.

Boiled Rice with Dates

5 Cups rice
6 Times the amount of water
4 Tablespoons salt

Wash rice thoroughly, put into boiling water and cook until soft; drain; pour boiling water through it to separate kernels; add 2 packages of chopped dates.

Roast Beef

12 lbs. Sear in hot oven, reduce heat. Roast 4 hours.

Pittsburg Potatoes

1 peck, parboiled with skins on. Peal and finish baking in oven.

String Beans

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Tapioca Pudding

1 Bottle grape juice
2 Cups minute tapioca
2 Quarts boiling water
½ Teaspoon salt
1 Cup karo

Cook tapioca in double boiler until transparent; add 1 bottle grape juice, karo and ½ cup of sugar. Serve cold wih milk.

Lace Cookies

2 Cups rolled oats
½ Cup white karo
1 Pound melted oleo
½ Teaspoon salt
1 Egg
1 Teaspoon almond flavoring

Combine wet and dry ingredients. Drop in greased tin. Spread like lace. Bake until done.

Graham Bread

3 Quarts graham flour
1 Tablespoon salt
8 Tablespoons baking powder
6 Tablespoons shortening
1½ Quarts milk
½ Cup karo
3 Eggs

Combine wet and dry ingredients. Bake in shallow pans. Pour in to the depth of 1 inch. Bake about 30 minutes.

Ginger Cake

3 Cups molasses
1½ Cups boiling water
1 Quart graham flour
¾ Quart barley flour
¾ Cups melted shortening
3 Teaspoons soda
3 Teaspoons ginger
1½ Teaspoons cinnamon
1½ Teaspoons salt

Combine wet and dry ingredients. Bake 40 minutes or until done.

Mock Cream of Wheat

1¼ Quarts white corn meal
5 Quarts boiling water
1½ Tablespoons salt

Add corn meal to boiling water, slowly boil one hour in open kettle.

Drop Biscuits

2 Quarts barley flour
1 Quart corn flour
¾ Cup shortening
8 Tablespoons baking powder
2 Tablespoons salt
4½ to 5 Cups milk or milk and water

Mix and sift dry ingredients, work in shortening with tips of fingers. Add liquid gradually, mix with knife to soft dough that can be dropped from spoon without spreading. Drop by spoonful, ½ inch apart, on well greased pans. Bake 15 minutes.

Scrambled Eggs

1 Quart milk
2 Dozen eggs
½ Cup oleo
1 Tablespoon salt

Heat milk and oleo in double boiler; when hot, add well beaten eggs and salt; cook until it thickens, stirring and scraping mixture from sides as fast as it forms.

Cottage Pudding

1½ Quarts barley flour
½ Quarts graham flour
1 Cup corn flour
1 Teaspoon salt
1 Cup sugar
5 Tablespoons baking powder
⅔ Cup melted oleo
4 Eggs (yolks)
6 Cups milk

Combine the above ingredients and then add well beaten whites of eggs last. Bake in medium oven.

Chocolate Sauce

1 Can sweetened condensed milk
½ Cup cocoa
4 Tablespoons butter

Put into a bowl and set in the top of a tea-kettle for a few minutes—then add 1 teaspoonful vanilla and spread on cake.

Baked Hash

Add enough potatoes to chopped beef to make 10 qts. in all. Saute one cup minced onion in ¼ cup Crisco until a light brown. Add to hash, moisten with left-over gravy. Season with salt and pepper; oil bottom and sides of square pans—put in hash, packing in well. Bake in oven until bottom and sides are brown and crisp. Turn out on platter with brown side uppermost.

Boston Cookies

1 Cup oleo
½ Cup karo
½ Cup of molasses
2 Eggs
1 Teaspoon soda
2 Tablespoons hot water
3 Cups graham flour
1 Teaspoon cinnamon
1 Cup chopped raisins

Drop on oiled tin and bake until done.

Oatmeal

2 Quarts rolled oats
4 Quarts boiling water
2 Tablespoons salt

Cook for one hour.

Creamed Cheese on Rice

Left-over hominy and grated cheese and milk and 2 eggs to make consistency of rarebit. Cook and serve on rice.

Danish Rolls

Scald 1 qt. milk, add 2 tablespoons fat and ¼ cup Karo—cool, add yeast cake dissolved in 2 tablespoons water and 1½ qts. wheat flour. Let rise until light—add cream of maize to make a dough—let rise again, shape into rolls and let rise until very light before baking them.

Soft Molasses Cookies

2 Cups molasses
1 Cup crisco
1 Cup milk
2 Teaspoons soda
1½ Teaspoons salt
3 Teaspoons ginger
2 Teaspoons cinnamon
2 Cups barley and enough graham flour to roll

Heat molasses, melt shortening in it, cool, add milk.

Mix dry ingredients with barley flour, then add graham to make as soft a dough as can be handled. Roll thick and bake in moderate oven.

Creamed Driedbeef

1½ lbs. smoked dried beef, shredded, covered with hot water, let stand 10 minutes, drain, cover with 2 qts. of white sauce, made as follows:

White Sauce

1½ Cups oleo
2 Cups barley flour
4 Quarts scalded milk
Seasoning

Heat oleo, add flour, stir until smooth, remove from fire, add scalded milk, beat and cook in double boiler for 30 minutes.

Chocolate Bread Pudding No. 1

2 Quarts stale crumbs
4 Quarts scalded milk
8 Ounces chocolate
4 Eggs well beaten
2 Teaspoons salt
4 Teaspoons vanilla
1 Cup karo
1 Cup raisins

Combine ingredients, and bake for one hour in moderate oven.

Hard Sauce

½ Cup oleo
1 Cup sugar
¼ Cup boiling water
1 Teaspoon lemon extract

Pour boiling water over butter, add sugar gradually, then flavoring.

Corn Cake

1 Quart yellow corn meal
1 Quart graham flour
½ Quart barley flour
1 Tablespoon salt
5 Tablespoons shortening melted
2¾ Teaspoons soda
1 Teaspoon baking powder
2 Eggs beaten
1¼ Quarts sour milk (if thick, more)
½ Cup molasses

Combine ingredients and bake in quick oven.

Hamburg Steak

8 Pounds Hamburg (finely chopped beef)
¾ Cup minced onion
½ Teaspoon pepper
3 Tablespoons salt

Shape into little cakes and fry.

Soda Scones

2½ Quarts barley flour
2½ Teaspoons salt
2½ Teaspoons soda
5 Teaspoons sugar
2 Cups of raisins

Sour milk to make a soft dough, mix and sift dry ingredients, add raisins, then milk. Roll out ¾ inch thick, brush over with milk. Bake in hot oven 20 minutes.

Baked Corn

6 dozen ears of corn

Remove the outer layer of husks, turn back the remainder and remove the silk. Replace the husks and tie together at the end of each ear. Bake in hot oven 25 to 30 minutes.

Cream Dressing

2½ Tablespoons salt
2 Tablespoons mustard
6 Tablespoons sugar
4 Tablespoons flour (barley)
2 Well beaten eggs
¾ Quart sour cream
1 Tablespoon pepper
¾ Cup vinegar

Mix cream and eggs. Mix dry ingredients, add vinegar, combine mixtures, cook in double boiler until mixture thickens, stirring constantly.

Spice Cake

2 Cups shortening
2 Cups sugar
4 Eggs
1½ Cups sour milk
2 Teaspoons soda
1 Cup molasses
2¼ Quarts barley
2 Cups raisins
4 Teaspoons cinnamon
2 Teaspoons cloves

Mix dry ingredients, then wet—and combine mixture. Bake in a moderate oven.

Chocolate Pie Filling

2¼ Quarts milk
8 Ounces chocolate
½ Teaspoon salt
2 Teaspoons vanilla
1 Cup sugar
1 Cup potato starch

Melt chocolate, sugar and Karo. Mix potato starch with 1 cup milk, scald the remainder and pour over chocolate mixture. Beat well, add potato starch gradually. Stir well, cook 15 minutes.

Barley Crust

1 Quart Barley flour
1 Teaspoon salt
½ Cup crisco
Water

Rub fat into sifted flour and salt with finger tips; add cold water to make dough. This makes five pies.

Coffee Bread

3 Cups scalded milk
2 Cups water
¼ Cup sugar
½ Cup crisco
2 Teaspoons salt
2 Eggs
1 Yeast cake dissolved in ¼ cup lukewarm water
2 Quarts white flour
1¼ Cups graham flour

Add shortening, sugar and salt to milk. When lukewarm, add dissolved yeast cake, well beaten eggs and flour. Let rise over night. In the morning pour into well greased shallow pans. Let rise in warm place. Cover with mixture of

½ Cup of oleo melted
¾ Cups of sugar
1½ Tablespoons cinnamon

Bake in hot oven To serve, cut through crust, then break in squares or pull apart with fork.

Plain Drop Cakes

¼ Cup sugar
1 Cup karo
1 Egg
1 Cup sour milk
¼ Teaspoon salt
1 Teaspoon soda
1 Teaspoon almond extract
1 Cup cream of maize
2 Cups corn flour

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1½ Cups barley flour
1 Cup melted shortening

Mix dry ingredients. Mix egg, melted shortening, add dry ingredients to wet. Drop by teaspoonful on greased tin. Place raisin on top of each and bake

Boiled Beets

¾ Peck
½ Cup fat
¼ Teaspoon pepper
¾ Cup vinegar
1 Tablespoon salt

Scrub beets. Cook in boiling water until soft. When tender put into cold water and rub off skins. Dice; add seasonings; reheat.

Drop Gems

3 Quarts graham flour
1 Cup shortening
2 Teaspoons salt
2 Eggs well beaten
2½ Teaspoons soda
Sour milk enough to moisten

Drop by tablespoonful on greased tin. Bake for 20 minutes.

Corn Chowder

5 Quarts diced potatoes
5 Slices salt pork
5 Medium sized onions
3 Quarts boiling water
7 Quarts milk
½ Cup flour
6 Tablespoons salt
1 Teaspoon pepper

Cut pork in ½ inch cubes—cook slowly until light, brown and crisp; add onion and cook slowly 5 minutes.

Put potatoes, pork cubes, onions and boiling water into kettle and cook until potatoes are soft. Stir flour into the fat, which has been dried out from the pork, then add to milk, which has been heated in double boiler. Cook 20 minutes. Add corn to potatoes, cook a few minutes, add milk and seasoning.

Crumb Bread

2 Quarts hot water
1 Cup molasses
4 Teaspoons salt
1½ Quarts bread crumbs
1 Yeast cake dissolved in 2 tablespoons lukewarm water
4 Tablespoons shortening
1 Quart graham flour
White flour to knead

The bread should be dried and ground in meat chopper before measuring. Add molasses and salt to hot water. Add crumbs and when lukewarm, stir in dissolved yeast and graham flour. Add white flour to knead thoroughly with melted fat. Let rise over night. In the morning shape into loaves. Let rise and bake one hour.

Stuffed Baked Tomatoes

40 large even-sized tomatoes

Stuffing

3 Cups cooked hominy
1 Cup grated cheese
1 Pepper chopped

Wash tomatoes, scoop out small hole from each, turn upside down to drain. Stuff with mixture of hominy, cheese and pepper. Sprinkle with buttered crumbs. Bake in moderate oven one hour.

Waffles

3 Cups corn meal
2 Quarts graham flour
1¼ Quarts barley flour
4 Eggs
4 Teaspoons salt
1½ Tablespoons soda
2 Quarts sour milk or more
½ Cup karo, ¾ cup melted crisco

Mix dry ingredients. Beat yolks of eggs, add milk, karo, melted fat. Combine wet and dry ingredients. Fold in stiffly beaten whites last.

Boiled Dressing

2 Tablespoons salt
2 Tablespoons mustard
¼ Teaspoon pepper
½ Teaspoon paprika
4 Tablespoons flour
1 Quart hot milk
1½ Cups hot vinegar
4 Well beaten eggs
½ Cup oleo

Mix dry ingredients, add beaten eggs, pour on hot milk, stirring constantly. Return to double boiler and cook until mixture thickens. Add oleo when nearly done. Remove from hot water, add vinegar. Be careful not to overcook dressing or it will curdle. Beat hard with Dover egg beater.

Hunter's Salad

A combination of diced carrots, cheese cut in small cubes, string beans in inch pieces and diced potatoes to make ten quarts. Dress with boiled dressing.

Gingerbread

4 Cups molasses
2 Cups boiling water
2¼ Quarts barley flour
1 Cup melted shortening
4 Teaspoons soda
4 Teaspoons ginger
2 Teaspoons cinnamon
2 Teaspoons salt

Add water to molasses. Mix and sift dry ingredients. Combine mixtures, add shortening and beat vigorously. Bake in well greased shallow pans in moderate oven 40 minutes or until done.

Plain Blanc Mange

4 Quarts scalded milk
2 Cups potato starch
2 Cups cold milk
3 Teaspoons salt
1 Cup karo

Mix potato starch, karo and salt together and mix to a smooth paste with cold milk. Add to scalded milk, stirring constantly, serve cold with chocolate sauce.

Chocolate Sauce

1 Can sweetened condensed milk
1 Cup cocoa
4 Tablespoons butter
2 Teaspoons vanilla

Mix and melt over tea kettle. Serve on plain blanc mange.

Baked Beans

3 Quarts pea beans
4 Tablespoons salt
1 Cup molasses
¼ Cup vinegar
1 Tablespoon mustard
1 Teaspoon pepper
2 Pounds fat salt pork

Pick over beans. Cover with cold water, soak over night, drain, cover with cold water, add one teaspoon soda, bring to boiling point and parboil 15 minutes or until skins burst when exposed to air; drain.

Scrape and scald pork rind, cut pork in two pieces and cut through rind every ½ inch to the depth of 1 inch.

Mix salt and spices, dilute with molasses and vinegar. Bury pork in beans, fill pot with boiling water and cook slowly six or more hours. Add more water if needed.

Brown Bread

1 Quart corn meal
1 Quart graham flour
1 Quart rye
2 Cups molasses
4 Teaspoons salt
2 Quarts sour milk
2 Tablespoons soda

Mix and sift dry ingredients together, add milk and molasses, beat thoroughly. Fill well greased molds two-thirds full, cover and steam 3½ hours.

Quick Bread

1 Quart graham flour
1 Quart barley flour
½ Quart corn flour
4 Teaspoons soda
4 Teaspoons cream of tartar
1½ Tablespoons salt
1 Cup molasses
½ Cup melted shortening
1¼ Quarts sour milk
1 Cup raisins chopped

Drop Biscuits

1 Quart barley flour
1 Quart corn flour
1 Quart graham flour
¾ Cup shortening
2 Tablespoons salt
2 Teaspoonfuls soda

Sufficient quantity of sour milk to mix ingredients to drop consistency. Mix and sift dry ingredients, add sour milk gradually mixing with a knife to soft dough that can be dropped from a spoon without spreading. Drop by spoonfuls on greased tin ½ inch apart. Bake in quick oven.

Lamb Stew

10 Pounds of lamb from forequarter
3 Onions minced
½ Cup drippings
Salt and pepper to taste

Cut lamb in 1-inch cubes. Fry onion in drippings till slightly brown. Dredge meat with flour, brown in drippings. Put meat in kettle wih 2 qts of water. Simmer until tender, thicken with 1 cup flour mixed to a paste with cold water.

Tomato Jelly

4 Quarts tomato juice
Salt and pepper to taste
½ Teaspoon onion juice
½ Teaspoon celery salt
4 Packages of gelatine

Soak gelatine in 1 cup cold water for 5 minutes. Heat tomatoes and seasoning to boiling point, pour over gelatine, stir well and pour into moulds. Set away to harden.

Apple Dumplings

2 Quarts flour
3 Tablespoons baking powder
1 Cup shortening
2 Teaspoons salt
30 Apples
1 Cup sugar
Cinnamon to taste
Water to make a soft dough

Sift flour, baking powder and salt, work in shortening with tips of fingers and add water to moisten enough to roll out. Cut paste in rounds ¼ inch in thickness, place a pared and cored apple in center of each. Fill cavity with sugar and cinnamon. Draw paste around apple, fold and pinch edges together. Place in pan. Bake 45 to 60 minutes. When half done, put water to the depth of ¼ inch in bottom of pan. Test by pricking apples with fork.

Jam Jumbles

1½ Cups oleo
1 Cup karo
½ Cup sugar
4 Eggs
1 Cup sour milk
1½ Teaspoons salt
1½ Teaspoons soda
1 Teaspoon cream of tartar

Cream oleo, add sugar and well beaten eggs, salt, flour, milk and karo, then add 1 cup corn flour and enough barley to roll as soft as can be handled. Roll, cut in rounds, place in baking sheet, put 1 teaspoonful jam on each bottom round, place another on top—press edges together slightly. Bake in moderate oven.

Creamed Salt Codfish

4 Quarts milk
1 Cup fat
2 Cups barley flour
Salt and pepper to taste
3 Pounds codfish

Make a white sauce of flour, fat and milk, melt and heat fat, add flour—stir until smooth, slowly add hot milk, stirring all the time. Cook until thick.

Soak codfish over night, bring slowly to the boiling point after draining. Simmer 45 minutes, or until soft. Add to sauce, season to taste and serve hot.

Cream of Maize

4 Quarts boiling water
2 Tablespoons salt

Add cream of maize very slowly, stirring all the time, until the consistency of oatmeal. Cook 45 minutes.

Roast Leg of Lamb

10½ Pounds leg of lamb
Flour to dredge
Salt and pepper to taste

Remove caul and outer skin, wipe with cloth dampened in salt and water. Sprinkle with salt and pepper, dredge with flour, place in dripping pan. Allow 15 minutes to each pound. After meat is seared over, put a little hot water in the bottom of the pan. Baste often.

Brown Gravy

1½ Cups drippings
1½ Cups barley flour
1 Small onion sliced thin
2½ Quarts hot water
Salt and pepper to taste

Sautè onion in drippings until light brown, stir in flour, when smooth add hot water, stirring constantly to keep smooth. Boil 5 minutes. Season, strain if necessary.

Bellevue Pudding

3 Cups molasses
¾ Cup crisco
1½ Quarts barley flour
3 Cups sweet milk
3 Teaspoons cinnamon
3 Teaspoons cloves
3 Teaspoons soda

Melt shortening, add ingredients. Turn into oiled molds. Steam 2½ hours.

Creamy Sauce

1 Cup sugar
1 Cup oleo
3 well beaten eggs
1 Can condensed milk
½ Cup boiling water
3 Teaspoons vanilla

Rub sugar and oleo to a cream. Add eggs and milk, beat well. Just before serving, add hot water and vanilla.

Coddled Eggs

Put 30 eggs into boiling water in a double boiler. Let them remain in boiling water 10 minutes.

Cream of Rye

6 Quarts boiling water
5 Quarts cream of rye
4 Tablespoons salt

Add rye gradually, stirring with a fork so as not to break flakes.

Toasted Cheese Sandwiches

Spread a slice of bread thinly with butter and grated cheese, place another slice on top, press together. Toast in hot oven. Serve hot.

Vegetable Soup

3 Cups carrots cut fine
3 Cups turnips cut fine
1 Cup celery cut fine
2 Quarts potatoes diced
3 Onions sliced thin
6 Quarts boiling water
1 Cup drippings
Chopped parsley
Salt and pepper

Wash and scrape carrots, cut fine or put through food chopper, dice potatoes, cut onion in small pieces, chop turnips finely, cut celery in ¼-inch pieces. Mix all except potatoes. Cook 10 minutes in fat. Stir constantly; turn into soup kettle. Add potatoes and water. Cook 1 hour. Season, add chopped parsley just before serving.

Turkish Pilaff

One qt. rice, fried in 1 cup oil until light brown. Add 3 qts. tomato juice, 1 tablespoon salt, ¼ teaspoonful paprika, and boil 5 minutes. Then let simmer until rice is perfectly done.

Rechauffe of Meat

3 Quarts cold meat ground
2 Quarts potatoes
1 Quart left-over brown gravy
2 Onions minced and sauted in 3 tablespoons fat

Mix all, bake 1 hour, turn on platter and garnish with Turkish pilaff.

Tomato Jelly

4½ qts. of tomato juice flavored with onion and celery, and seasoned with salt and pepper. Add 4 packages Knox gelatine, hydrated with 1 cup cold water to boiling tomato juice. Cool and set in ice box to harden.

String Bean Salad

Half package beans, washed. Remove strings, cut in ¼-inch strips, cook until tender. Drain, cool, mix with boiled dressing.

Chocolate Bread Pudding No. 2

2 Quarts stale bread
4 Quarts scalded milk
5 Ounces chocolate
1 Cup sugar
4 Eggs well beaten
2½ Teaspoons vanilla
1½ Teaspoons salt

Soak bread in scalded milk until soft, melt chocolate in saucepan over hot water, add ½ sugar and milk, enough to moisten chocolate to pouring consistency. Mix all ingredients. Turn into shallow baking dishes. Bake slowly 1 hour, or until knife or splint comes out clean, after being inserted. Serve with thin cream.

Cereal Bread

2 Quarts any kind of left-over cereal
¾ Cups hot water
1 Cup molasses
1 Tablespoon salt
1 Yeast cake dissolved in ¼ cup warm water.
½ Cup shortening
Flour to knead

Let rise. Shape into loaves or rolls. Let rise again and bake 1 hour.

Ham Baked in Milk

Cut 6 lbs. of ham into 1-inch slices; soak in cold water 1 hour. Wipe dry with a food cloth. Brown in hot frying pan. Pour over browned ham 1½ qts. sweet milk. Bake in moderate oven 1 hour.

Suet Pudding

3 Cups chopped suet
3 Cups molasses
3 Cups sour milk
2¼ Quarts barley flour
4½ Teaspoons soda
4 Teaspoons salt
2 Teaspoons ginger
2 Teaspoons nutmeg
1 Teaspoon cloves
1 Tablespoon cinnamon

Mix and sift dry ingredients. Add molasses and milk to suet, combine mixtures, turn into greased moulds. Cover and steam three hours. Serve with sunshine sauce.

Sunshine Pudding

4 Eggs yolks
1 Cup sugar
1½ Cup cream
2 Teaspoons vanilla

Stir beaten yolks and sugar together. Add cream which has been whipped stiff, and vanilla.

Cream of Corn Soup

Corn from one dozen ears, cut after cooking
6 Quarts scalded milk
1 Small onion
¼ Cup flour
¼ Cup oleo
Salt and pepper to taste

Cook corn and onion, minced fine, in 1 quart of water until onion is done. Add scalded milk, mix flour to a paste with water, add to soup, stir, cook 10 minutes. Add oleo, season to taste and serve hot.